Standardized Landing Statistics for Pacific Cod *(Gadus macrocephalus)* and Important Shelf Co-habitants from Hecate Strait, Queen Charlotte Sound, and off Southwest Vancouver Island, 1956-1982

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STANDARDIZED LANDING STATISTICS FOR PACIFIC COD (*Gadus macrocephalus*) AND IMPORTANT SHELF CO-HABITANTS FROM HECATE STRAIT, QUEEN CHARLOTTE SOUND, AND OFF SOUTHWEST VANCOUVER ISLAND, 1956-1982

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ABSTRACT

Foucher, R. P. 1984. Standardized landing statistics for Pacific cod (Gadus macrocephalus) and important shelf co-habitants from Hecate Strait, Queen Charlotte Sound, and off southwest Vancouver Island, 1956-82. Can. Data Rep. Fish. Aquat. Sci. 447: iii + 47 p.

Landings, effort, and landings per unit effort (LPUE) were calculated for Pacific cod plus lingcod and petrale sole off southwest Vancouver Island, lingcod and rock sole in Queen Charlotte Sound, and rock sole and petrale sole in Hecate Strait. The effort is refined by the Option-2 method of allocating effort in a multi-species fishery and standardized to account for changing vessel efficiency.

Key words: Landing statistics, Pacific cod, Hecate Strait, Queen Charlotte Sound, southwest Vancouver Island.

RÉSUMÉ

Foucher, R. P. 1984. Standardized landing statistics for Pacific cod (Gadus macrocephalus) and important shelf co-habitants from Hecate Strait, Queen Charlotte Sound, and off southwest Vancouver Island, 1956-82. Can. Data Rep. Fish. Aquat. Sci. 447: iii + 47 p.

On présente les calculs de débarquements, de l'effort et des débarquements par unité d'effort pour la morue du Pacifique, la morue-lingue et la plie de Californie, au large de la côte sud-ouest de l'île Vancouver, pour la morue-lingue et la sole du Pacifique, dans le détroit Reine-Charlotte, et pour la sole du Pacifique et de la plie de Californie, dans le détroit d'Hécate. Le calcul de l'effort est perfectionné à l'aide de la méthode Option-2 pour la répartition de l'effort dans une pêche polyvalente, et normalisé afin de tenir compte de l'efficacité changeante du navire.

Mots clés: statistiques sur les débarquements, morue du Pacifique, détroit d'Hécate, détroit Reine-Charlotte, sud-ouest de l'île Vancouver.

INTRODUCTION

Landing statistics for Pacific cod (Gadus macrocephalus) in major regions of British Columbia (Fig. 1) have been previously published for southwest coast Vancouver Island, Area 3C-N (Westrheim and Foucher 1983); Queen Charlotte Sound, Areas 5A + 5B (Foucher and Westrheim 1983); and Hecate Strait, Areas 5C + 5D (Foucher and Jacobs 1981) along with numbers landed at age. Correction for coding errors has produced some changes in landings by major area, especially for Hecate Strait. The development of a means of standardizing effort (Westrheim and Foucher in prep.) has improved the effort estimates.

The purpose of this report is to assemble the standardized landing statistics for Pacific cod and its important shelf co-habitants--lingcod (Ophiodon elongatus) and petrale sole (Eopsetta jordani) off southwest Vancouver Island; lingcod and rock sole (Lepidopsetta bilineata) in Queen Charlotte Sound; and rock sole and English sole (Parophyrs vetulus) in Hecate Strait. This report replaces, in part, the three reports mentioned above covering the major regions. Revisions to the age-composition portion of these reports will be published later.

METHODS

Within each major region Canada-U.S. landings, effort and LPUE were estimated for Pacific cod and its major shelf co-habitants from each important fishing locality (ground). The grounds included from southwest Vancouver Island are Amphitrite, Big Bank, Clo-oose, Deep Big Bank, Minor Statistical Area 24 (MSA 24) and Swiftsure (Fig. 2). Deep Big Bank, not shown in Fig. 2, lies due west of Big Bank. Data from areas 5A and 5B (Fig. 1) were not divided into individual grounds. The grounds included from Hecate Strait are: Dundas, Two Peaks, Butterworth, White Rocks-Bonilla, Shell, Ole Spot, Horseshoe and Reef Island-Cumshewa (Fig. 3). Effort was calculated using the Option-2 method as described in Westrheim (1983) but with two differences.

First, for major areas 3C-N (Canadian portion of Area 3C), 5A and 5B, selected species (Pacific cod and its major shelf co-habitants) landings and effort were substituted for all-species landings and effort. This eliminated landings and effort of slope species whose depth distribution did not significantly overlap with that of shelf species. Furthermore, the slope area was trawled primarily by U.S. vessels.

Second, for major area 3C-N, the Canadian total landings of selected species (Pacific cod, lingcod and petrale sole) were estimated for Clo-oose Ground and then subtracted from the Canada-U.S. landings of each species in Area 3C-N. This was done because Clo-oose Ground lies within the Canadian 3-mile

limit and was therefore closed to U.S. vessels. The resulting Canada-U.S. selected-species landings for Area 3C-N' (3C-N less Clo-oose) were then used to extrapolate the Canadian interviewed landings for each species and ground. A further exception was that petrale sole was deleted from the selected species for January-March because mature specimens had migrated down the continental slope to spawn.

In some quarter years if there were no Canadian interviewed landings in a locality for a species, but there were Canada-U.S. landings (not coded to locality), the Canada-U.S. landings by locality could not be estimated and were indicated as being unknown.

Effort was standardized by multiplying the nominal effort for each landing by a correction factor determined by the horsepower class of the vessel involved. The derivation of these factors is described in Westrheim and Foucher (in prep.)

In this derivation, data prior to 1960 was excluded because of the low demand for Pacific cod among Canadian processors, uncorrectable encoding errors in landing records and the predominance of single-gear trawlers (Westrheim and Foucher, in prep.). No correction was made for the difference in efficiency between single-gear and double-gear trawlers because few single-gear vessels were operating after 1960. Data prior to 1960 is included here and was standardized by horsepower class but should not be considered entirely reliable.

RESULTS

Following is an index to the contents of the tables of landing statistics by major statistical area and species:

Area	Pacific cod	Ling cod	English sole	Petrale sole	Rock sole
3C-N					
Annual landings	1	2	-	3	-
Statistics by quarter-year for selected grounds	4-9	10-15	-	16-21	-
5A					
Annual landings	22	22	-	-	22
Statistics by quarter-year	23	24	-	-	25

Area	Pacific cod	Ling cod	English sole	Petrale sole	Rock sole
5B					
Annual landings	26	26	-	-	26
Statistics by quarter-year	27	28	-	-	29
5C					
Annual landings	3[illegible]	-	31	-	32
Statistics by quarter-year for selected grounds	33-35	-	36-38	-	39-41
5D					
Annual landings	42	-	43	-	44
Statistics by quarter-year for selected grounds	45-49	-	50-54	-	55-59

In the tables of annual landings by area there are landings marked UNK (Unknown). This is caused by the lack of Canadian interviewed landings in the major area. Canada-U.S. landings in these cases could not be extrapolated by ground (U.S. landings are not reported by ground). A minimum estimate of landings listed as unknown can be obtained by summing landings from each quarter-year with known landings. For example, for Amphitrite in 1957 (Table 1) a minimum estimate of the landings can be obtained by summing the landings by quarter-year for 1957 in Table 4:

$$\text{UNK} + 913 + 74 + 0 = 987.$$

In the tables of landing statistics by quarter-year for Areas 5A and 5B (Tables 23-25, 27-29) there are cases with no effort but substantial landings (e.g. Table 23, 1956, Q4: landings = 295 t, effort = 0 h). This is caused by the lack of Canadian interviewed landings. In these cases effort and LPUE could not be estimated because U.S. data does not include effort.

In the tables of statistics by quarter-year there are cases with small landings but no effort (e.g. Table 6, 1957 Q3: landings = 2 t, effort = 0 h). This is caused by the lack of Canadian interviewed landings of more than 0.5 t in any single depth interval. Rank-1 and rank-2 depth intervals could not be chosen (Westrheim 1983) and no effort was assigned.

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Westrheim, S. J., and R. P. Foucher. (In prep.). Relative fishing power for Canadian trawlers landing Pacific cod (Gadus macrocephalus) and important shelf co-habitants from major offshore areas of western Canada, 1960-81.

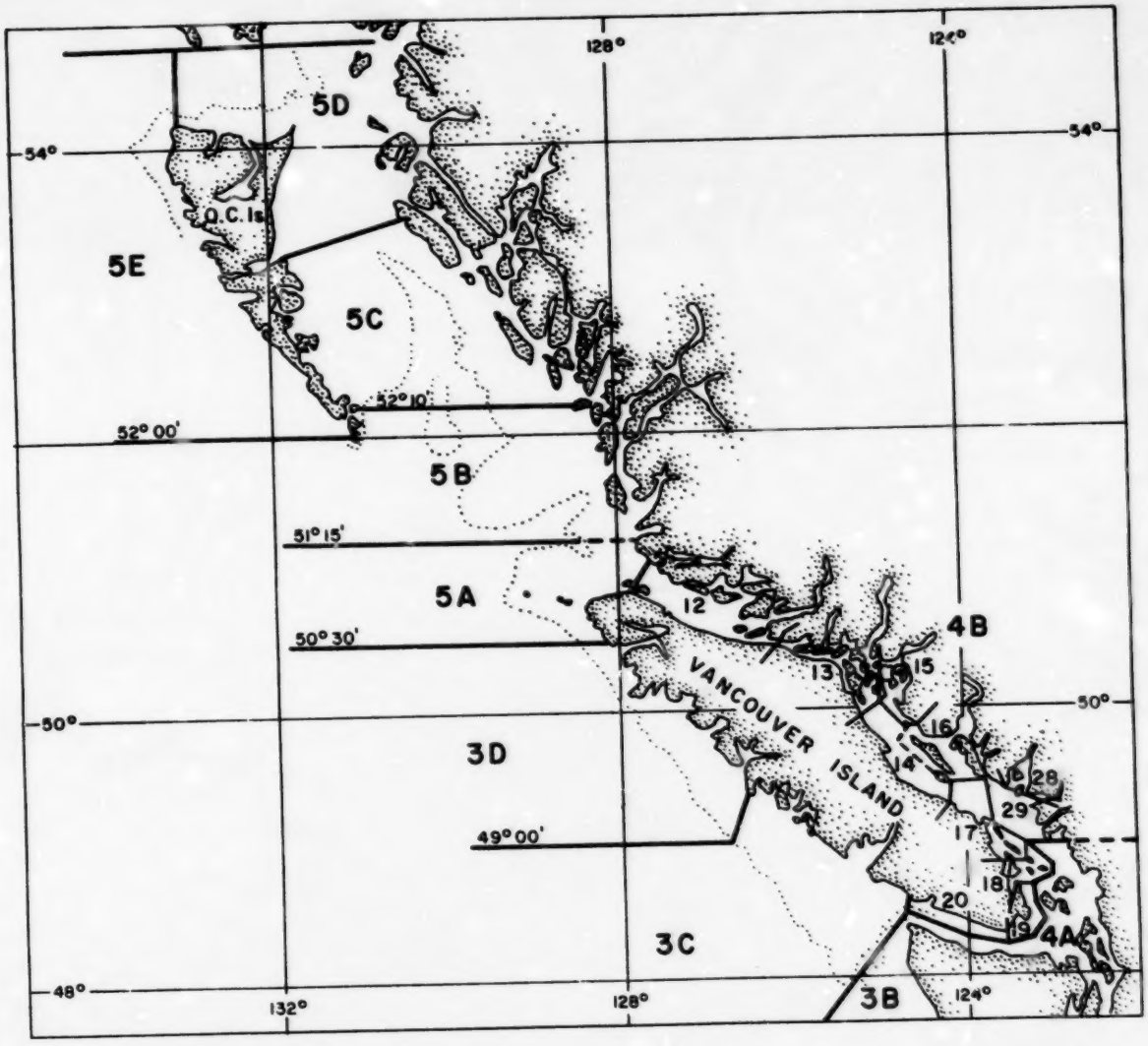

Fig. 1. Major statistical areas for Canada-U.S. trawl landings of groundfish.

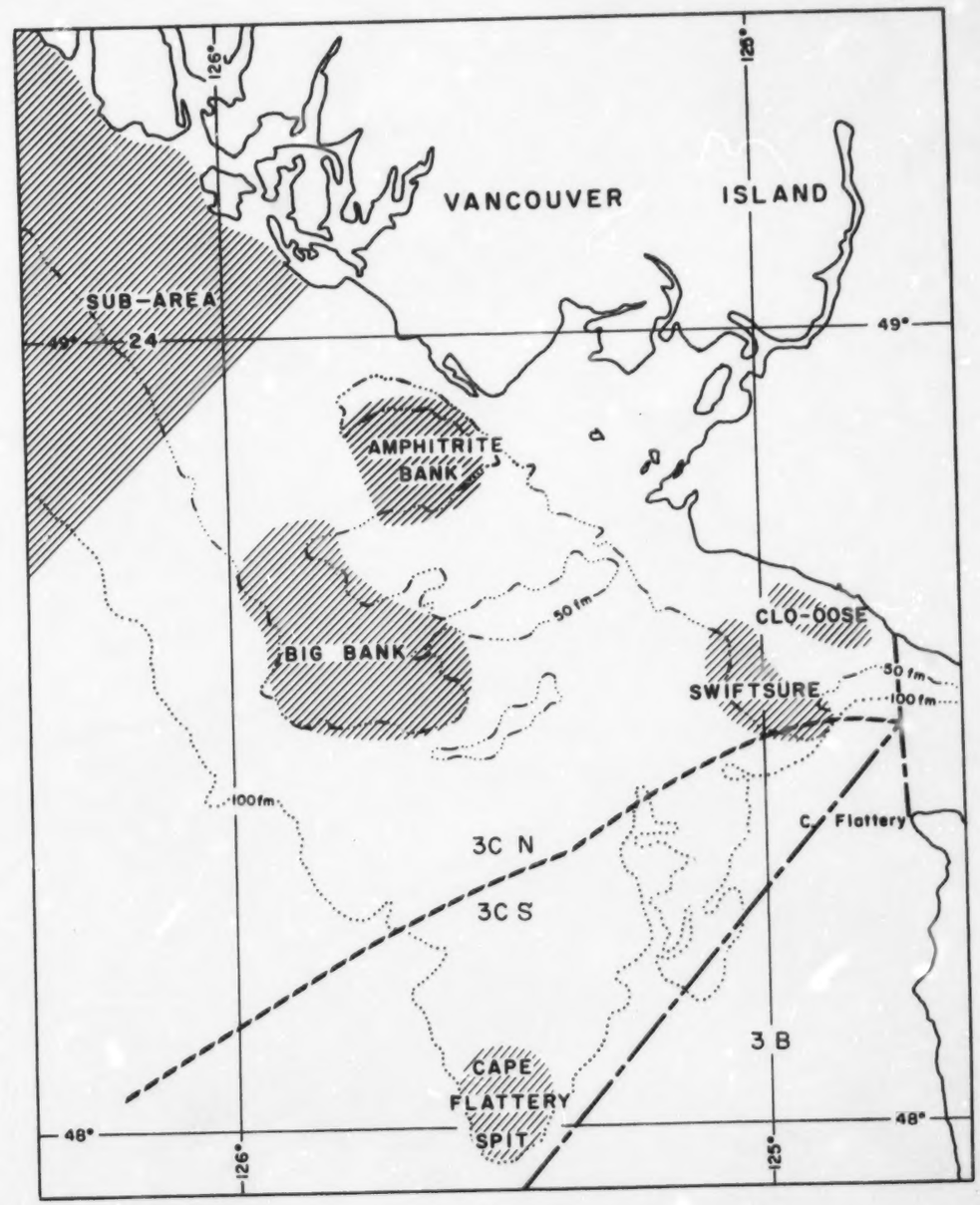

Fig. 2. Major trawling grounds off southwest Vancouver Island.

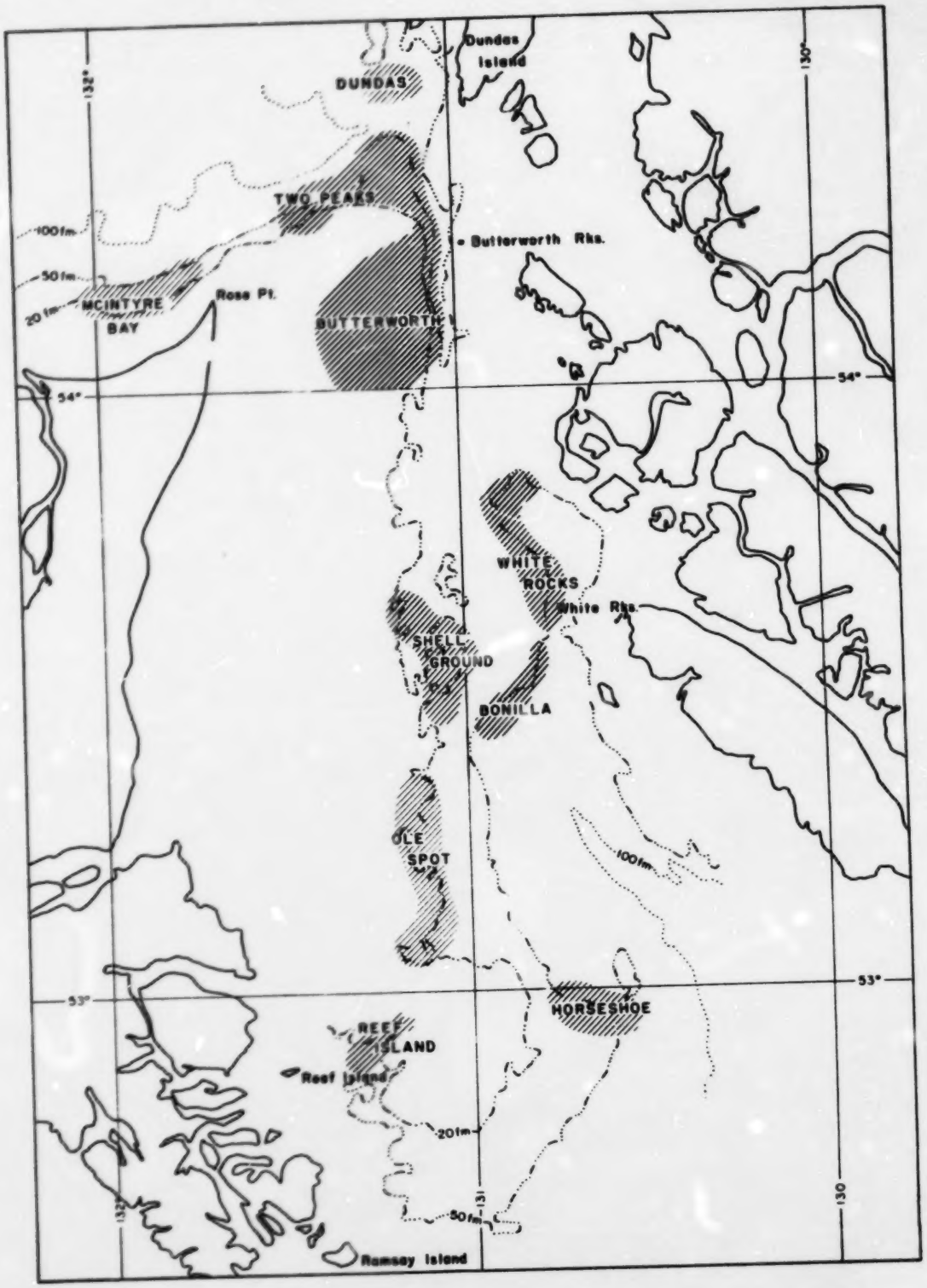

Fig. 3. Major trawling grounds in Hecate Strait.

Table 1. Canada-U.S. annual landings of Pacific cod from Area 3C-N and individual localities.

Year	Area 3C-N	Ground[a] AM	BB	CL[b]	DBB	MSA 24	SW	Other
1956	1,148	589	409	55	-	8	62	25
57	1,582	UNK[c]	UNK	UNK	UNK	UNK	UNK	UNK
58	763	314	283	26	-	23	116	1
59	673	274	204	32	-	3	157	34
1960	589	184	185	73	-	15	120	12
61	390	UNK	UNK	87	UNK	UNK	UNK	UNK
62	567	318	115	104	-	14	17	-1[d]
63	1,177	379	151	391	-	5	246	5
64	1,126	368	162	260	-	1	330	5
1965	2,513	589	1,356	419	-	29	79	41
66	2,637	1,119	723	539	-	88	157	11
67	1,643	971	174	432	-	35	30	1
68	1,160	882	131	117	-	6	28	-4
69	953	698	189	47	-	10	7	2
1970	943	497	315	105	-	5	12	9
71	3,058	1,060	1,353	336	-	176	132	1
72	5,468	2,330	1,896	488	-	356	394	4
73	3,551	2,571	425	172	-	23	353	7
74	3,321	1,847	736	31	-	78	622	7
1975	3,756	2,164	725	49	-	156	659	3
76	3,577	1,958	910	10	-	124	535	40
77	2,843	1,469	519	22	-	160	357	316
78	1,878	1,171	373	11	-	135	189	-1
79	1,677	398	660	5	85	49	411	69
1980	977	UNK	UNK	UNK	UNK	UNK	UNK	UNK
81	855	166	131	-	-	9	415	134
82	1,086	690	136	3	3	11	236	7

[a]Grounds: AM=Amphitrite, BB=Big Bank, CL=Clo-oose, DBB=Deep Big Bank, MSA 24=Minor Statistical Area 24, SW=Swiftsure.

[b]Canada only.

[c]UNK=Unknown landings-see text.

[d]Negative values due to rounding.

Table 2. Canada-U.S. annual landings of lingcod from Area 3C-N and individual localities.

Year	Area 3C-N	Ground[a] AM	BB	CL[b]	DBB	MSA 24	SW	Other
1956	1,151	81	522	44	-	19	445	40
57	1,070	UNK	UNK	5	UNK	UNK	UNK	UNK
58	1,047	UNK	UNK	UNK	UNK	UNK	UNK	UNK
59	1,742	UNK	UNK	1	UNK	UNK	UNK	UNK
1960	1,867	UNK	UNK	UNK	UNK	UNK	UNK	UNK
61	1,972	UNK	UNK	39	UNK	UNK	UNK	UNK
62	890	19	214	19	-	359	264	15
63	609	UNK	UNK	5	UNK	UNK	UNK	UNK
64	1,127	UNK	UNK	29	UNK	UNK	UNK	UNK
1965	1,812	100	660	63	-	200	778	11
66	2,030	275	1,170	85	-	245	200	55
67	1,779	190	841	17	-	565	165	1
68	1,661	133	1,241	11	-	125	134	17
69	1,054	84	861	12	-	53	21	23
1970	703	51	617	3	-	11	21	-
71	979	50	304	30	-	534	63	-2[c]
72	625	112	421	4	-	57	30	1
73	876	87	596	2	-	95	88	8
74	1,029	91	843	-	-	19	74	2
1975	1,630	29	1,451	2	-	65	79	4
76	1,205	72	922	-	-	137	56	18
77	844	37	488	-	-	267	9	43
78	360	17	262	-	-	71	11	-1
79	602	89	478	-	1	20	5	9
1980	623	23	520	-	-	44	31	5
81	603	35	474	-	3	64	13	14
82	1,510	33	1,179	-	3	244	48	3

[a]Grounds: AM=Amphitrite, BB=Big Bank, CL=Clo-oose, DBB=Deep Big Bank, MSA 24=Minor Statistical Area 24, SW=Swiftsure.

[b]Canada only.

[c]Negative values due to rounding.

Table 3. Canada-U.S. annual landings of petrale sole from Area 3C-N and individual localities.

Year	Area 3C-N	Ground[a] AM	BB	CL[b]	DBB	MSA 24	SW	Other
1956	585	UNK	UNK	1	UNK	UNK	UNK	UNK
57	629	UNK	UNK	1	UNK	UNK	UNK	UNK
58	609	UNK	UNK	-	UNK	UNK	UNK	UNK
59	1,072	UNK	UNK	-	UNK	UNK	UNK	UNK
1960	974	UNK	UNK	6	UNK	UNK	UNK	UNK
61	1,109	UNK	UNK	20	UNK	UNK	UNK	UNK
62	850	UNK	UNK	17	UNK	UNK	UNK	UNK
63	658	UNK	UNK	1	UNK	UNK	UNK	UNK
64	530	UNK	UNK	19	UNK	UNK	UNK	UNK
1965	658	40	204	25	-	114	229	46
66	512	UNK	UNK	10	UNK	UNK	UNK	UNK
67	259	UNK	UNK	UNK	UNK	UNK	UNK	UNK
68	233	UNK	UNK	1	UNK	UNK	UNK	UNK
69	142	UNK	UNK	5	UNK	UNK	UNK	UNK
1970	198	18	136	-	28	7	7	2
71	523	14	297	9	-	183	14	6
72	561	46	379	6	-	20	100	12
73	452	UNK	UNK	-	UNK	UNK	UNK	UNK
74	684	UNK	UNK	-	UNK	UNK	UNK	UNK
1975	465	UNK	UNK	UNK	UNK	UNK	UNK	UNK
76	453	UNK	UNK	-	UNK	UNK	UNK	UNK
77	311	4	159	-	-	116	18	14
78	126	UNK	UNK	-	UNK	UNK	UNK	UNK
79	92	1	64	-	-	16	9	2
1980	115	-	51	2	8	33	22	-1[c]
81	180	3	66	-	17	81	11	2
82	232	-	82	-	26	101	22	1

[a]Grounds: AM=Amphitrite, BB=Big Bank, CL=Clo-oose, DBB=Deep Big Bank, MSA 24=Minor Statistical Area 24, SW=Swiftsure.

[b]Canada only.

[c]Negative values due to rounding.

Table 4. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Amphitrite, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	3	167	18	560	1133	494	26	137	190	0	0	0
1957	UNK	0	0	913	1426	640	74	156	474	0	0	0
1958	29	62	468	280	593	472	5	20	250	0	0	0
1959	13	14	929	219	801	273	42	485	87	0	0	0
1960	0	0	0	151	1134	133	33	1047	32	0	0	0
1961	UNK	0	0	165	2220	74	39	264	148	5	39	128
1962	86	298	289	196	740	265	36	386	93	0	0	0
1963	159	914	174	211	775	272	9	205	44	0	0	0
1964	45	126	357	264	977	270	58	279	208	1	16	63
1965	182	1406	129	374	1344	278	33	67	491	0	0	0
1966	550	1282	429	387	1424	272	182	465	391	0	0	0
1967	643	2493	258	320	1658	193	8	46	174	0	0	0
1968	721	2489	290	160	653	245	0	0	0	1	9	111
1969	514	1543	333	181	933	194	0	0	0	3	73	41
1970	298	1080	276	169	1064	159	29	114	254	1	38	26
1971	784	1698	462	260	882	295	15	190	79	1	7	143
1972	1852	2636	703	430	1555	277	43	167	258	5	34	147
1973	2347	1941	1209	208	557	374	11	134	82	5	40	125
1974	1801	2576	699	33	240	138	7	52	135	6	51	118
1975	2097	3482	602	44	193	228	19	57	333	4	34	118
1976	1699	2567	662	254	801	317	5	67	75	0	0	0
1977	1306	2203	593	159	663	240	4	12	333	0	0	0
1978	882	1988	444	289	626	462	0	0	0	0	0	0
1979	303	549	552	91	519	175	1	3	333	3	26	115
1980	UNK	0	0	272	1402	194	1	7	143	0	0	0
1981	0	0	0	160	822	195	6	85	71	0	0	0
1982	620	1046	593	70	333	210	0	0	0	0	0	0

Table 5. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Big Bank, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	3	244	12	97	937	104	82	514	160	227	1205	188
1957	UNK	0	0	45	473	95	315	2870	110	74	947	78
1958	0	0	0	59	98	602	154	2442	63	70	436	160
1959	1	8	125	8	794	10	101	2232	45	94	1339	70
1960	0	0	0	36	1349	27	116	1580	73	33	643	51
1961	UNK	0	0	18	1431	13	31	1455	21	27	1132	24
1962	0	0	0	19	390	49	77	2421	32	19	331	57
1963	0	0	0	7	79	89	136	1462	93	8	166	48
1964	0	0	0	102	292	350	25	155	161	35	156	224
1965	637	1560	408	185	962	192	426	2110	202	108	361	299
1966	15	15	1000	174	1186	147	532	2174	245	2	104	19
1967	0	0	0	32	514	62	74	934	79	68	679	100
1968	0	0	0	39	243	160	40	783	51	52	954	54
1969	0	0	0	82	1089	75	85	1716	50	22	240	92
1970	1	2	500	72	293	246	200	1747	114	42	125	336
1971	14	44	318	678	1250	542	418	1062	394	243	434	560
1972	256	112	2286	927	1482	625	572	1624	352	141	553	255
1973	0	0	0	171	587	291	199	1349	148	55	223	246
1974	0	0	0	249	1286	194	356	1832	194	131	464	283
1975	2	11	182	361	1577	229	244	2281	107	118	562	210
1976	0	0	0	393	2143	183	410	2317	177	107	1033	104
1977	0	0	0	300	1610	186	197	1734	114	22	277	79
1978	0	0	0	255	1336	191	91	724	126	27	102	265
1979	0	0	0	285	1331	214	286	1228	233	89	209	426
1980	UNK	0	0	166	1235	134	113	998	113	25	93	269
1981	0	0	0	47	1144	41	62	632	98	22	377	58
1982	0	0	0	40	1612	25	68	1370	50	28	365	77

Table 6. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Cle-oose, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	7	54	130	41	286	143	6	42	143	1	15	67
1957	UNK	0	0	27	158	171	2	0	0	0	0	0
1958	13	23	565	13	39	333	0	0	0	0	0	0
1959	0	0	0	30	114	264	1	15	67	1	5	200
1960	0	0	0	60	150	400	13	37	351	0	0	0
1961	0	0	0	54	110	491	33	119	277	0	0	0
1962	0	0	0	64	217	295	40	61	656	0	0	0
1963	112	173	647	258	615	420	12	25	480	9	16	563
1964	185	515	359	70	316	222	5	111	45	0	0	0
1965	98	351	280	263	691	381	58	249	233	0	0	0
1966	189	455	415	278	705	394	48	154	312	24	33	727
1967	278	406	685	105	323	325	49	105	467	0	0	0
1968	66	275	240	43	281	153	0	0	0	8	2	4000
1969	3	25	120	24	136	176	0	0	0	20	60	333
1970	58	202	287	43	259	166	4	13	308	0	0	0
1971	36	123	293	253	549	461	43	119	361	4	23	174
1972	183	199	920	289	643	449	16	45	356	0	0	0
1973	112	148	757	60	305	197	0	0	0	0	0	0
1974	2	24	83	27	103	262	0	0	0	2	5	400
1975	36	97	371	13	50	260	0	0	0	0	0	0
1976	7	24	292	3	179	17	0	0	0	0	0	0
1977	9	24	375	12	36	333	1	2	500	0	0	0
1978	11	37	297	0	0	0	0	0	0	0	0	0
1979	0	0	0	3	14	214	0	0	0	2	18	111
1980	UNK	0	0	0	0	0	0	0	0	7	30	233
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	1	15	67	2	15	133	0	0	0	0	0	0

Table 7. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Deep Big Bank, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	UNK	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	UNK	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	85	101	842	0	0	0	0	0	0
1980	UNK	0	0	1	2	500	1	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	3	13	231	0	0	0	0	0	0	0	0	0

Table 8. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from MSA 24, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	3	119	25	5	67	75	0	0	0	0	0	0
1957	UNK	0	0	0	0	0	0	0	0	2	44	45
1958	15	238	63	3	49	61	5	96	52	0	0	0
1959	0	0	0	3	1212	2	0	0	0	0	0	0
1960	9	1221	7	0	0	0	6	654	9	0	0	0
1961	UNK	0	0	0	0	0	0	0	0	0	0	0
1962	11	320	34	0	0	0	3	1164	3	0	0	0
1963	0	0	0	5	36	139	0	0	0	0	0	0
1964	0	0	0	1	165	6	0	0	0	0	0	0
1965	0	0	0	0	0	0	29	641	45	0	0	0
1966	0	0	0	0	0	0	88	662	133	0	0	0
1967	0	0	0	2	161	12	27	759	36	6	364	16
1968	5	41	122	0	0	0	1	135	7	0	0	0
1969	0	0	0	4	31	129	0	0	0	6	16	375
1970	0	0	0	0	0	0	5	152	33	0	0	0
1971	4	12	333	156	194	802	16	1430	11	0	0	0
1972	79	28	2821	238	508	468	39	160	244	0	0	0
1973	4	33	121	3	148	20	16	40	400	0	0	0
1974	0	0	0	0	0	0	75	143	524	3	21	143
1975	0	0	0	44	219	201	69	291	237	43	207	208
1976	3	34	88	108	1104	98	10	70	143	3	179	17
1977	4	40	100	0	0	0	113	610	185	43	676	64
1978	0	0	0	45	116	388	50	116	430	40	155	259
1979	0	0	0	4	25	160	32	133	241	13	48	271
1980	UNK	0	0	11	477	23	0	0	0	0	0	0
1981	0	0	0	8	239	33	1	229	4	0	0	0
1982	0	0	0	3	29	103	4	759	5	4	12	333

Table 9. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Swiftsure, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	12	311	39	50	874	57	0	0	0
1957	UNK	0	0	62	657	94	0	0	0	0	0	0
1958	0	0	0	53	245	216	0	0	0	63	242	260
1959	0	0	0	112	822	136	4	77	52	41	363	113
1960	0	0	0	73	719	102	0	0	0	47	1619	29
1961	UNK	0	0	5	1255	4	0	0	0	11	356	31
1962	0	0	0	8	818	10	0	0	0	9	31	290
1963	26	114	228	218	734	297	0	0	0	2	14	143
1964	6	12	500	241	648	372	77	802	96	6	87	69
1965	11	23	478	57	184	310	11	756	15	0	0	0
1966	70	75	933	56	629	89	0	0	0	31	57	544
1967	0	0	0	30	448	67	0	0	0	0	0	0
1968	5	54	93	17	360	47	0	0	0	6	10	600
1969	0	0	0	0	0	0	0	0	0	7	50	140
1970	0	0	0	0	0	0	0	0	0	12	15	800
1971	0	0	0	115	214	537	16	103	155	1	29	34
1972	26	32	813	273	440	620	45	54	833	50	104	481
1973	0	0	0	162	180	900	143	123	1167	48	287	167
1974	0	0	0	464	507	915	135	199	678	23	52	442
1975	5	16	313	407	621	655	70	306	229	177	236	750
1976	0	0	0	516	789	654	19	73	260	0	0	0
1977	0	0	0	344	462	744	0	0	0	13	26	500
1978	2	10	200	179	347	516	0	0	0	8	5	1600
1979	0	0	0	377	483	780	33	34	971	1	5	200
1980	UNK	0	0	142	411	346	206	315	654	27	33	818
1981	0	0	0	400	893	448	15	24	625	0	0	0
1982	0	0	0	176	331	531	48	87	553	12	84	143

Table 10. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for lingcod from Amphitrite, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	75	1178	64	6	137	44	0	0	0
1957	UNK	0	0	29	1426	20	5	143	35	0	0	0
1958	UNK	0	0	15	803	19	3	0	0	0	0	0
1959	UNK	0	0	92	801	115	37	354	105	0	0	0
1960	UNK	0	0	30	1022	29	159	1018	156	18	139	129
1961	UNK	0	0	298	2220	134	65	301	216	0	0	0
1962	0	0	0	10	725	14	9	253	36	0	0	0
1963	UNK	0	0	7	775	9	4	179	22	0	0	0
1964	UNK	0	0	27	977	28	12	279	43	0	0	0
1965	8	1229	7	72	1361	53	20	105	190	0	0	0
1966	6	1152	5	69	1424	48	200	465	430	0	0	0
1967	56	1391	40	115	1658	69	19	46	413	0	0	0
1968	57	2252	25	71	585	121	5	18	278	0	0	0
1969	17	1543	11	59	877	67	8	12	667	0	0	0
1970	9	1080	8	37	1087	34	3	114	26	2	38	53
1971	12	1668	7	7	882	8	31	172	180	0	0	0
1972	12	2529	5	84	1551	54	16	174	92	0	0	0
1973	4	1911	2	21	554	38	55	120	459	7	40	175
1974	77	2858	27	9	220	41	4	52	77	1	35	29
1975	15	3394	4	12	193	62	2	0	0	0	0	0
1976	27	2767	10	41	774	53	4	67	60	0	0	0
1977	23	2130	11	14	715	20	0	0	0	0	0	0
1978	6	1715	3	11	787	14	0	0	0	0	0	0
1979	3	549	5	86	539	159	0	0	0	0	0	0
1980	0	0	0	23	1387	17	0	0	0	0	0	0
1981	0	0	0	32	843	38	3	85	35	0	0	0
1982	0	0	0	32	298	107	1	7	143	0	0	0

Table 11. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for lingcod from Big Bank, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	5	350	14	218	916	238	115	453	254	184	1173	157
1957	UNK	0	0	151	452	334	544	2843	191	56	754	74
1958	UNK	0	0	8	98	82	766	2442	314	77	355	217
1959	UNK	0	0	380	794	479	752	2232	337	186	1339	139
1960	UNK	0	0	378	1349	280	583	2323	251	63	643	98
1961	UNK	0	0	411	1467	280	275	1455	189	80	1132	71
1962	0	0	0	60	390	154	131	2499	52	23	261	88
1963	UNK	0	0	5	79	63	164	1499	109	4	144	28
1964	UNK	0	0	48	304	158	52	155	335	47	156	301
1965	8	1451	6	163	962	169	420	2004	210	69	549	126
1966	0	0	0	454	1166	389	657	2174	302	59	104	567
1967	0	0	0	280	514	545	392	958	409	169	719	235
1968	0	0	0	133	220	606	551	842	655	557	840	663
1969	0	0	0	361	1126	320	438	1715	255	62	180	344
1970	0	0	0	100	295	339	506	1703	297	11	113	97
1971	3	0	0	134	1343	100	134	1036	129	33	384	86
1972	2	89	22	152	1494	102	247	1799	137	20	518	39
1973	0	0	0	191	606	315	377	1342	281	28	219	128
1974	0	0	0	317	1297	244	420	1781	236	106	482	220
1975	0	0	0	388	1946	199	985	2463	400	78	562	139
1976	0	0	0	287	1944	148	456	2517	181	179	956	187
1977	0	0	0	204	1799	113	232	1213	191	52	238	218
1978	0	0	0	173	1290	134	81	670	121	8	112	71
1979	0	0	0	191	1063	180	267	1183	226	20	209	96
1980	0	0	0	167	1295	129	345	989	349	8	63	127
1981	0	0	0	211	885	238	200	667	300	63	377	167
1982	0	0	0	349	1374	254	769	1770	434	61	365	167

Table 12. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for lingcod from Clo-oose, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	6	325	18	38	91	420	0	0	0
1957	0	0	0	1	0	0	4	28	143	0	0	0
1958	UNK	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	1	0	0	0	0	0	0	0	0
1960	UNK	0	0	6	145	41	3	37	81	0	0	0
1961	0	0	0	5	129	39	34	168	202	0	0	0
1962	0	0	0	18	86	210	1	20	50	0	0	0
1963	0	0	0	5	615	8	0	0	0	0	0	0
1964	1	515	2	12	330	36	16	91	176	0	0	0
1965	1	267	4	10	691	14	52	249	209	0	0	0
1966	1	432	2	58	750	77	22	154	143	4	33	121
1967	0	0	0	8	268	30	9	105	86	0	0	0
1968	1	239	4	9	268	34	1	25	40	0	0	0
1969	0	0	0	4	107	37	0	0	0	8	60	133
1970	1	0	0	2	247	8	0	0	0	0	0	0
1971	0	0	0	6	545	11	23	46	500	1	23	43
1972	0	0	0	3	643	5	1	0	0	0	0	0
1973	0	0	0	2	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	2	21	95	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0

Table 13. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for lingcod from Deep Big Bank, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	UNK	0	0	0	0	0	0	0	0	0	0	0
1958	UNK	0	0	0	0	0	0	0	0	0	0	0
1959	UNK	0	0	0	0	0	0	0	0	0	0	0
1960	UNK	0	0	0	0	0	0	0	0	0	0	0
1961	UNK	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	UNK	0	0	0	0	0	0	0	0	0	0	0
1964	UNK	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	1	78	13	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	3	6	500	0	0	0	0	0	0
				0	0	0	0	0	0	3	69	43

Table 14. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for lingcod from MSA 24, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	9	67	134	8	45	178	2	11	182
1957	UNK	0	0	0	0	0	2	21	95	0	0	0
1958	UNK	0	0	0	0	0	62	96	646	0	0	0
1959	UNK	0	0	39	1212	32	0	0	0	0	0	0
1960	UNK	0	0	22	223	99	123	699	176	27	163	166
1961	UNK	0	0	72	88	818	125	711	176	0	0	0
1962	0	0	0	50	565	89	298	1475	202	11	71	155
1963	UNK	0	0	0	0	0	8	94	85	4	22	182
1964	UNK	0	0	3	165	18	64	355	180	0	0	0
1965	0	0	0	13	282	46	187	689	271	0	0	0
1966	0	0	0	5	19	263	240	662	363	0	0	0
1967	0	0	0	218	161	1354	276	724	381	71	364	195
1968	0	0	0	0	0	0	122	135	904	3	34	88
1969	0	0	0	2	13	154	30	77	390	21	7	3000
1970	0	0	0	0	0	0	7	109	65	4	30	133
1971	0	0	0	2	77	26	532	1341	397	0	0	0
1972	0	0	0	27	502	54	30	204	147	0	0	0
1973	87	44	1977	4	15	267	3	40	75	1	2	500
1974	0	0	0	0	0	0	18	143	126	1	21	48
1975	2	9	222	9	100	90	25	266	94	29	207	140
1976	0	0	0	53	1073	49	3	37	81	81	179	453
1977	5	40	125	2	18	111	56	330	170	204	614	332
1978	34	69	493	4	188	21	8	107	75	25	147	170
1979	0	0	0	1	33	30	6	98	61	13	44	295
1980	0	0	0	35	477	73	9	28	321	0	0	0
1981	0	0	0	32	270	119	32	281	114	0	0	0
1982	0	0	0	7	51	137	234	794	294	3	12	250

Table 15. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for lingcod from Swiftsure, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	129	311	415	316	1076	294	0	0	0
1957	UNK	0	0	262	657	399	7	10	700	0	0	0
1958	UNK	0	0	73	326	224	21	49	429	8	232	34
1959	UNK	0	0	157	822	191	17	100	170	79	363	218
1960	UNK	0	0	111	679	163	48	88	545	278	1735	160
1961	UNK	0	0	457	1255	364	122	639	191	9	415	22
1962	0	0	0	238	818	291	26	276	94	0	0	0
1963	UNK	0	0	139	734	189	245	494	496	0	0	0
1964	UNK	0	0	226	657	344	600	835	718	16	0	0
1965	0	0	0	388	805	482	390	804	485	0	0	0
1966	0	0	0	200	618	324	0	0	0	0	0	0
1967	0	0	0	165	464	356	0	0	0	0	0	0
1968	0	0	0	121	360	336	13	40	325	0	0	0
1969	0	0	0	0	0	0	0	0	0	21	50	420
1970	0	0	0	9	34	265	10	47	213	2	0	0
1971	0	0	0	4	214	19	59	103	573	0	0	0
1972	0	0	0	20	440	45	5	54	93	5	104	48
1973	0	0	0	10	180	56	37	120	308	41	287	143
1974	0	0	0	49	507	97	25	199	126	0	0	0
1975	0	0	0	23	621	37	55	306	180	1	34	29
1976	0	0	0	41	789	52	15	73	205	0	0	0
1977	0	0	0	8	412	19	1	7	143	0	0	0
1978	0	0	0	11	343	32	0	0	0	0	0	0
1979	0	0	0	3	445	7	2	34	59	0	0	0
1980	0	0	0	3	360	8	28	308	91	0	0	0
1981	0	0	0	13	886	15	0	0	0	0	0	0
1982	0	0	0	12	322	37	36	113	318	0	0	0

Table 16. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for petrale sole from Amphitrite, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	UNK	0	0	35	1068	33	5	137	36	0	0	0
1957	UNK	0	0	48	1426	34	7	156	45	0	0	0
1958	UNK	0	0	37	534	69	0	0	0	0	0	0
1959	UNK	0	0	23	425	54	61	354	172	0	0	0
1960	UNK	0	0	75	1022	73	78	1018	77	8	69	116
1961	UNK	0	0	138	2220	62	23	298	77	0	0	0
1962	UNK	0	0	33	725	46	10	133	75	0	0	0
1963	UNK	0	0	12	183	66	8	179	45	0	0	0
1964	UNK	0	0	12	977	12	29	279	104	0	0	0
1965	0	0	0	34	1304	26	6	105	57	0	0	0
1966	UNK	0	0	15	1246	12	29	465	62	0	0	0
1967	UNK	0	0	25	1658	15	4	46	87	0	0	0
1968	UNK	0	0	3	431	7	0	0	0	0	0	0
1969	UNK	0	0	7	637	11	0	0	0	0	0	0
1970	6	85	71	10	1058	9	2	0	0	0	0	0
1971	0	0	0	1	259	4	13	186	70	0	0	0
1972	24	2178	11	12	1551	8	10	163	61	0	0	0
1973	UNK	0	0	0	0	0	7	134	52	0	0	0
1974	UNK	0	0	0	0	0	0	0	0	0	0	0
1975	UNK	0	0	1	0	0	0	0	0	0	0	0
1976	UNK	0	0	5	623	8	0	0	0	0	0	0
1977	0	0	0	4	476	8	0	0	0	0	0	0
1978	UNK	0	0	3	120	25	0	0	0	0	0	0
1979	0	0	0	1	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	1	265	4	2	85	24	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0

Table 17. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for petrale sole from Big Bank, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	UNK	0	0	50	840	60	73	445	164	362	1183	306
1957	UNK	0	0	77	338	228	354	2843	125	95	921	103
1958	UNK	0	0	19	98	194	360	2442	147	117	359	326
1959	UNK	0	0	137	794	173	377	2344	161	193	1339	144
1960	UNK	0	0	19	830	23	132	2018	65	140	643	218
1961	UNK	0	0	92	1431	64	134	1455	92	127	1132	112
1962	UNK	0	0	22	390	56	238	2429	98	44	240	184
1963	UNK	0	0	0	0	0	358	1462	245	17	166	102
1964	UNK	0	0	8	285	28	13	155	84	3	101	30
1965	0	0	0	27	962	28	133	2254	59	44	438	101
1966	UNK	0	0	65	1166	56	212	2193	97	26	104	250
1967	UNK	0	0	18	514	35	63	895	70	38	571	67
1968	UNK	0	0	3	205	15	95	783	121	100	940	106
1969	UNK	0	0	28	1089	26	81	1718	47	3	180	17
1970	0	0	0	22	289	76	104	1893	55	10	113	88
1971	16	130	123	32	685	47	197	1021	193	52	392	133
1972	0	0	0	103	1429	72	226	1614	140	50	540	93
1973	UNK	0	0	53	344	154	175	1342	130	26	261	100
1974	UNK	0	0	122	1292	94	398	1785	223	59	503	117
1975	UNK	0	0	88	1397	63	181	3050	59	22	562	39
1976	UNK	0	0	65	1995	33	140	2479	56	95	1032	92
1977	0	0	0	70	1696	41	73	1500	49	16	277	58
1978	UNK	0	0	56	1276	44	17	740	23	3	98	31
1979	0	0	0	22	964	23	35	1179	30	7	209	33
1980	0	0	0	23	1189	19	28	989	28	0	0	0
1981	0	0	0	18	1011	18	31	587	53	17	377	45
1982	0	0	0	32	1153	28	43	1762	24	7	365	19

Table 18. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for petrale sole from Clo-oose, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	0	0	0	1	65	15	0	0	0
1957	0	0	0	0	0	0	1	17	59	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	6	145	41	0	0	0	0	0	0
1961	0	0	0	0	0	0	20	163	123	0	0	0
1962	0	0	0	3	296	10	14	45	311	0	0	0
1963	0	0	0	1	615	2	0	0	0	0	0	0
1964	0	0	0	8	330	24	11	91	121	0	0	0
1965	0	0	0	9	627	14	16	249	64	0	0	0
1966	0	0	0	8	783	10	2	41	49	0	0	0
1967	UNK	0	0	2	323	6	5	105	48	0	0	0
1968	0	0	0	1	10	100	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	5	60	83
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	1	0	0	4	46	87	4	23	174
1972	0	0	0	3	194	15	3	34	88	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	UNK	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	2	14	143
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0

Table 19. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for petrale sole from Deep Big Bank, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	UNK	0	0	0	0	0	0	0	0	0	0	0
1957	UNK	0	0	0	0	0	0	0	0	0	0	0
1958	UNK	0	0	0	0	0	0	0	0	0	0	0
1959	UNK	0	0	0	0	0	0	0	0	0	0	0
1960	UNK	0	0	0	0	0	0	0	0	0	0	0
1961	UNK	0	0	0	0	0	0	0	0	0	0	0
1962	UNK	0	0	0	0	0	0	0	0	0	0	0
1963	UNK	0	0	0	0	0	0	0	0	0	0	0
1964	UNK	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	UNK	0	0	0	0	0	0	0	0	0	0	0
1967	UNK	0	0	0	0	0	0	0	0	0	0	0
1968	UNK	0	0	0	0	0	0	0	0	0	0	0
1969	UNK	0	0	0	0	0	0	0	0	0	0	0
1970	27	152	178	1	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	24	32	750	0	0	0	0	0	0	0	0	0
1973	UNK	0	0	0	0	0	0	0	0	0	0	0
1974	UNK	0	0	0	0	0	0	0	0	0	0	0
1975	UNK	0	0	0	0	0	0	0	0	0	0	0
1976	UNK	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	UNK	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	2	0	0	6	45	133	0	0	0	0	0	0
1981	3	145	21	14	416	34	0	0	0	0	0	0
1982	17	119	143	8	45	179	0	0	0	1	44	23

Table 20. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for petrale sole from MSA 24, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	UNK	0	0	5	67	75	5	45	111	3	11	273
1957	UNK	0	0	0	0	0	0	0	0	0	0	0
1958	UNK	0	0	0	0	0	7	96	73	0	0	0
1959	UNK	0	0	0	0	0	0	0	0	0	0	0
1960	UNK	0	0	0	0	0	149	738	202	8	0	0
1961	UNK	0	0	61	88	693	275	686	401	0	0	0
1962	UNK	0	0	152	531	286	217	1475	147	6	71	85
1963	UNK	0	0	0	0	0	8	94	85	6	22	273
1964	UNK	0	0	0	0	0	38	355	107	0	0	0
1965	0	0	0	0	0	0	114	689	165	0	0	0
1966	UNK	0	0	5	0	0	51	662	77	0	0	0
1967	UNK	0	0	7	161	43	52	822	63	5	98	51
1968	UNK	0	0	0	0	0	2	135	15	0	0	0
1969	UNK	0	0	0	0	0	5	77	65	0	0	0
1970	0	0	0	1	31	32	5	93	54	1	30	33
1971	0	0	0	8	294	27	175	1341	130	0	0	0
1972	0	0	0	7	475	15	13	204	64	0	0	0
1973	UNK	0	0	0	0	0	13	40	325	0	0	0
1974	UNK	0	0	0	0	0	6	143	42	0	0	0
1975	UNK	0	0	22	219	100	12	266	45	10	207	48
1976	UNK	0	0	70	1073	65	3	40	75	14	179	78
1977	9	40	225	0	0	0	47	715	66	60	614	98
1978	UNK	0	0	1	42	24	6	61	98	6	147	41
1979	0	0	0	1	33	30	12	78	154	3	44	68
1980	7	0	0	23	477	48	3	28	107	0	0	0
1981	45	1707	26	23	431	53	13	281	46	0	0	0
1982	10	60	167	40	170	235	48	796	60	3	28	107

Table 21. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for petrale sole from Swiftsure, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	UNK	0	0	5	268	19	29	991	29	0	0	0
1957	UNK	0	0	48	657	73	0	0	0	0	0	0
1958	UNK	0	0	75	313	240	0	0	0	10	242	41
1959	UNK	0	0	137	822	167	13	100	130	107	388	276
1960	UNK	0	0	94	679	138	10	88	114	226	1735	130
1961	UNK	0	0	169	1255	135	47	639	74	14	415	34
1962	UNK	0	0	65	818	79	10	288	35	11	168	65
1963	UNK	0	0	94	734	128	16	494	32	0	0	0
1964	UNK	0	0	149	707	211	171	816	209	3	49	61
1965	0	0	0	96	805	119	133	756	176	0	0	0
1966	UNK	0	0	60	618	97	0	0	0	0	0	0
1967	UNK	0	0	35	464	75	0	0	0	0	0	0
1968	UNK	0	0	10	360	28	2	40	50	0	0	0
1969	UNK	0	0	0	0	0	0	0	0	3	50	60
1970	0	0	0	0	0	0	5	24	208	2	15	133
1971	0	0	0	1	214	5	10	103	97	3	29	103
1972	0	0	0	52	440	118	11	54	204	37	104	356
1973	UNK	0	0	6	180	33	67	122	550	82	287	286
1974	UNK	0	0	42	507	83	44	199	221	2	38	53
1975	UNK	0	0	39	621	63	56	306	183	7	190	37
1976	UNK	0	0	22	789	28	10	73	137	0	0	0
1977	0	0	0	18	309	58	0	0	0	0	0	0
1978	UNK	0	0	25	343	73	0	0	0	0	0	0
1979	0	0	0	4	341	12	5	34	147	0	0	0
1980	0	0	0	4	360	11	18	286	63	0	0	0
1981	0	0	0	8	886	9	3	24	125	0	0	0
1982	0	0	0	6	322	19	15	91	165	1	12	83

Table 22. Canada-U.S. annual landings of Pacific cod, lingcod, and rock sole from Area 5A, 1956-82.

Year	Pacific cod	Lingcod	Rock sole
1956	1,159	350	551
57	2,245	433	511
58	681	296	501
59	599	192	212
1960	232	280	397
61	98	388	237
62	174	531	196
63	287	285	161
64	513	352	156
1965	797	331	157
66	1,066	707	330
67	761	759	252
68	626	1,227	435
69	389	617	293
1970	185	590	167
71	461	230	135
72	756	164	58
73	623	232	57
74	868	339	74
1975	712	82	37
76	1,139	258	182
77	701	122	83
78	975	128	79
79	954	100	202
1980	596	108	238
81	283	183	114
82	257	467	189

Table 23. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Area 5A, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	168	4872	34	320	2814	114	376	628	599	295	0	0
1957	201	515	390	833	755	1103	787	1286	612	424	1242	341
1958	112	1888	59	334	5194	64	181	8869	20	54	270	200
1959	55	21	2667	347	1236	281	157	474	331	40	0	0
1960	9	34	267	138	1551	89	60	504	119	25	163	153
1961	13	0	0	64	634	101	10	425	24	11	0	0
1962	36	550	65	46	1030	45	79	1138	69	13	78	167
1963	13	0	0	67	1988	34	183	1551	118	24	240	100
1964	16	0	0	210	1060	198	148	346	428	139	280	497
1965	4	28	143	276	757	365	208	581	358	309	645	479
1966	60	96	625	347	839	414	393	1824	215	266	1123	237
1967	62	132	471	237	855	277	245	1908	128	217	1578	137
1968	45	125	359	370	1622	228	168	1534	110	43	731	59
1969	44	160	276	157	2586	61	119	969	123	69	1388	50
1970	14	0	0	78	1275	61	56	616	91	37	422	88
1971	0	0	0	211	1987	106	181	1270	142	69	147	471
1972	11	0	0	423	911	464	230	930	247	92	322	286
1973	81	567	143	333	963	346	154	386	399	55	1033	53
1974	40	0	0	458	2276	201	299	464	644	71	253	281
1975	4	0	0	417	986	423	203	391	519	88	480	183
1976	24	63	381	425	1636	260	611	2405	254	82	537	153
1977	4	0	0	406	2005	203	261	1568	166	30	165	182
1978	22	140	157	594	1618	367	289	1085	266	70	770	91
1979	39	178	220	480	909	528	327	1012	323	108	434	249
1980	68	301	226	315	1119	282	183	614	298	30	166	181
1981	17	52	327	219	913	240	34	283	120	13	120	109
1982	12	57	209	153	796	192	74	769	96	18	356	51

Table 24. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for lingcod from Area 5A, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	86	0	0	46	800	57	183	843	217	35	0	0
1957	28	2464	11	105	1960	54	241	1553	155	59	1033	57
1958	5	1160	4	131	2751	48	90	1426	63	70	980	71
1959	12	0	0	44	996	44	124	684	181	12	0	0
1960	2	0	0	78	2817	28	176	1134	155	24	120	200
1961	5	0	0	161	995	162	194	326	595	28	0	0
1962	45	1823	25	119	1246	95	357	1273	281	10	30	333
1963	3	0	0	79	695	114	196	972	202	7	39	182
1964	7	0	0	102	616	166	195	442	441	48	220	218
1965	3	15	200	92	542	170	171	787	217	65	785	83
1966	1	0	0	115	666	173	435	1914	227	156	988	158
1967	1	73	14	125	958	131	340	1415	240	293	2721	108
1968	5	75	67	566	1990	284	578	2031	285	78	429	182
1969	65	0	0	267	2961	90	210	973	216	75	965	78
1970	235	0	0	147	921	160	133	590	225	75	200	375
1971	20	21	938	90	782	115	110	934	118	10	34	290
1972	2	0	0	59	718	82	83	543	153	20	186	108
1973	2	0	0	159	577	275	51	300	170	20	416	48
1974	10	0	0	172	1081	159	143	1061	135	14	156	90
1975	1	0	0	54	624	87	24	642	37	3	0	0
1976	1	0	0	59	1840	32	145	2552	57	53	164	322
1977	0	0	0	57	1486	38	63	1126	56	2	0	0
1978	18	102	176	49	975	50	48	933	51	13	93	140
1979	3	64	47	51	890	57	38	1003	38	8	723	11
1980	1	0	0	42	1153	36	46	582	79	19	78	243
1981	0	0	0	80	1372	58	95	321	296	8	108	74
1982	12	57	209	139	1536	90	296	823	360	20	533	38

Table 25. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for rock sole from Area 5A ,by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	30	86	348	276	869	318	243	383	634	2	0	0
1957	42	147	286	249	923	270	214	691	310	6	107	56
1958	75	329	228	338	1369	247	85	250	340	3	16	190
1959	3	12	250	136	774	176	72	498	145	1	0	0
1960	10	40	250	232	938	247	133	571	233	22	69	318
1961	21	105	200	163	706	231	51	323	158	2	0	0
1962	21	118	178	98	680	144	76	852	89	1	0	0
1963	1	6	167	71	529	134	83	706	118	6	56	107
1964	4	10	400	88	835	105	54	659	82	10	208	48
1965	3	11	286	90	650	138	48	261	184	16	61	261
1966	8	24	333	94	503	187	204	1122	182	24	45	533
1967	11	78	141	128	556	230	102	626	163	11	416	26
1968	14	105	133	289	1297	223	129	670	192	3	0	0
1969	6	63	95	190	1555	122	90	545	165	7	146	48
1970	4	44	91	101	689	147	59	406	145	3	39	77
1971	0	0	0	62	467	133	72	522	138	1	0	0
1972	0	0	0	25	290	86	32	459	70	1	23	43
1973	1	0	0	45	490	92	10	210	48	1	0	0
1974	1	2	500	37	859	43	26	372	70	10	123	81
1975	0	0	0	26	343	76	10	234	43	1	40	25
1976	1	0	0	109	1404	78	63	1722	37	9	100	90
1977	0	0	0	52	593	88	30	1162	26	1	9	111
1978	2	70	29	51	504	101	20	508	39	6	90	67
1979	1	0	0	134	573	234	63	869	72	4	116	34
1980	15	90	167	148	911	162	73	373	196	2	105	19
1981	7	61	114	98	521	188	8	154	52	1	0	0
1982	2	50	40	123	581	212	60	886	68	4	89	45

Table 26. Canada-U.S. annual landings of Pacific cod, lingcod, and rock sole from Area 5B, 1956-82.

Year	Pacific cod	Lingcod	Rock sole
1956	594	250	307
57	499	170	206
58	497	277	379
59	347	429	344
1960	386	378	503
61	142	323	416
62	248	407	531
63	390	357	517
64	762	335	482
1965	1,143	566	568
66	745	827	772
67	740	901	741
68	334	1,043	392
69	310	517	652
1970	114	390	245
71	467	415	368
72	1,564	476	382
73	1,291	349	324
74	1,424	532	371
1975	1,711	429	396
76	1,129	346	368
77	567	257	188
78	984	162	218
79	931	242	208
1980	797	300	410
81	571	548	220
82	337	579	155

Table 27. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Area 5B, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	115	0	0	187	996	188	257	1389	185	35	0	0
1957	39	0	0	230	379	607	64	458	140	166	922	180
1958	9	0	0	338	883	383	108	540	200	42	0	0
1959	10	40	250	249	971	256	82	537	153	6	78	77
1960	46	230	200	159	936	170	177	860	206	4	56	71
1961	13	0	0	114	883	129	13	587	22	2	0	0
1962	9	0	0	109	719	152	123	797	154	7	0	0
1963	2	70	29	227	2236	102	153	797	192	8	0	0
1964	24	60	400	294	911	323	376	728	516	68	1326	51
1965	16	19	857	751	803	935	368	1059	348	8	114	70
1966	3	0	0	437	888	492	254	1494	170	51	106	483
1967	1	4	250	480	2285	210	250	1583	158	9	122	74
1968	3	0	0	187	1692	111	117	1091	107	27	203	133
1969	24	0	0	127	1524	83	140	1206	116	19	561	34
1970	7	0	0	57	2641	22	44	4070	11	6	54	111
1971	0	0	0	239	3705	65	204	3158	65	24	396	61
1972	5	0	0	857	5590	153	605	2673	226	97	648	150
1973	31	103	300	829	2806	295	416	3437	121	15	355	42
1974	20	0	0	859	4469	192	501	2076	241	44	886	50
1975	0	0	0	653	2973	220	876	3031	289	203	975	208
1976	3	11	286	268	1347	199	635	2865	222	223	1007	221
1977	17	62	275	232	1480	157	255	2317	110	63	350	180
1978	47	165	286	197	974	202	685	2570	267	55	273	202
1979	10	103	97	466	1461	319	398	2904	137	57	285	200
1980	114	340	336	314	1695	185	299	1564	191	70	320	219
1981	42	77	544	381	1117	341	70	1464	48	78	207	377
1982	5	54	93	289	1800	161	24	863	28	19	247	77

Table 28. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for lingcod from Area 5B, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	2	0	0	46	418	110	170	498	342	32	0	0
1957	2	0	0	29	312	93	117	392	299	22	164	134
1958	1	9	111	103	892	115	163	557	293	10	0	0
1959	2	34	59	218	872	250	207	727	285	2	26	77
1960	3	0	0	83	820	101	287	1317	218	5	45	111
1961	1	0	0	141	995	142	179	693	258	2	0	0
1962	4	0	0	150	854	176	243	1217	200	10	31	318
1963	1	0	0	94	2072	45	258	1406	184	4	0	0
1964	3	0	0	128	1323	97	172	1208	142	32	125	256
1965	1	14	71	282	2839	99	274	2433	113	9	351	26
1966	1	0	0	401	2414	166	392	1544	254	33	172	192
1967	0	0	0	389	785	496	438	2246	195	74	167	444
1968	2	0	0	465	1791	260	567	1805	314	9	0	0
1969	2	0	0	210	1150	183	289	2312	125	16	315	51
1970	0	0	0	196	3027	65	174	1924	90	20	160	125
1971	0	0	0	161	941	171	244	1687	145	10	132	76
1972	2	0	0	195	4152	47	242	2326	104	37	354	104
1973	3	0	0	161	5363	30	180	2617	69	5	45	111
1974	3	0	0	131	2215	59	354	3986	89	44	496	89
1975	1	0	0	139	2953	47	268	3269	82	43	452	95
1976	0	0	0	42	1398	30	238	3139	76	66	2776	24
1977	0	0	0	97	1155	84	150	1930	78	10	495	20
1978	2	0	0	48	844	57	109	2210	49	3	190	16
1979	3	103	29	61	1476	41	171	2282	75	7	199	35
1980	5	199	25	83	1752	47	188	1930	97	24	184	131
1981	0	0	0	203	1127	180	324	1202	270	21	286	73
1982	5	54	93	264	1550	170	266	823	323	44	189	233

Table 29. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for rock sole from Area 5B, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	6	0	0	140	304	460	149	498	299	12	0	0
1957	1	0	0	86	261	330	106	315	336	13	87	149
1958	2	0	0	211	875	241	166	725	229	0	0	0
1959	5	24	208	141	742	190	196	570	344	2	5	375
1960	7	42	167	206	651	316	268	1106	242	22	66	333
1961	6	0	0	280	1161	241	130	587	221	0	0	0
1962	27	88	306	233	926	251	269	1048	257	2	19	105
1963	12	35	343	255	894	285	239	977	245	11	25	440
1964	1	15	67	216	1004	215	233	1303	179	32	134	239
1965	8	112	71	303	1094	277	241	844	286	16	162	99
1966	2	0	0	361	1061	340	367	1148	320	42	441	95
1967	0	0	0	346	1420	244	387	1042	372	8	8	1000
1968	9	0	0	182	1026	177	185	635	291	16	80	200
1969	1	0	0	254	841	302	307	1528	201	90	387	233
1970	0	0	0	109	419	260	120	667	180	16	55	292
1971	0	0	0	66	627	105	278	1320	211	24	83	288
1972	0	0	0	118	849	139	226	1617	140	38	144	263
1973	0	0	0	86	4687	18	235	888	265	3	26	115
1974	0	0	0	61	3609	17	258	2620	98	52	386	135
1975	0	0	0	85	1308	65	294	2651	111	29	638	45
1976	0	0	0	44	1172	38	295	2667	111	29	537	54
1977	0	0	0	38	1032	37	130	1750	74	20	553	36
1978	1	0	0	45	673	67	154	2023	76	18	112	160
1979	0	0	0	78	1447	54	125	1145	109	5	332	15
1980	2	7	286	148	360	412	243	1476	165	17	107	159
1981	2	0	0	30	1099	27	172	1267	136	16	119	135
1982	0	0	0	20	1744	11	106	703	151	29	189	153

Table 30. Canada-U.S. annual landings of Pacific cod from Area 5C and individual localities, 1956-82.

Year	Area 5C	Ground[a] OS	HS	RI-C	Other
1956	425	283	142	-	-
57	186	UNK	UNK	UNK	UNK
58	1,270	UNK	UNK	UNK	UNK
59	856	214	638	-	4
1960	401	2	399	-	-
61	33	-	33	-	-
62	165	60	105	-	-
63	723	UNK	UNK	UNK	UNK
64	1,819	510	1,310	-	-1[b]
1965	3,261	976	2,218	-	67
66	4,691	1,606	3,029	10	46
67	2,035	880	1,064	74	17
68	2,090	512	1,299	179	100
69	1,273	480	509	273	11
1970	253	87	51	109	6
71	453	85	156	209	3
72	773	9	602	160	2
73	1,798	75	1,354	364	5
74	1,665	10	1,354	300	1
1975	1,202	42	801	328	31
76	1,508	5	890	537	76
77	680	19	333	264	64
78	707	4	469	232	2
79	1,728	32	1,274	361	61
1980	1,375	18	1,083	216	58
81	995	19	667	293	16
82	506	-	329	172	5

[a]Grounds: OS=Ole Spot, HS=Horseshoe, RI-C=Reef Island-Cumshewa.

[b]Negative values due to rounding.

Table 31. Canada-U.S. annual landings of English sole from Area 5C and individual localities, 1956-82.

Year	Area 5C	Ground[a] OS	HS	RI-C	Other
1956	21	UNK	UNK	UNK	UNK
57	13	UNK	UNK	UNK	UNK
58	19	UNK	UNK	UNK	UNK
59	39	15	24	-	-
1960	68	4	64	-	-
61	6	6	-	-	-
62	23	11	11	-	1
63	39	UNK	UNK	UNK	UNK
64	15	UNK	UNK	UNK	UNK
1965	23	6	17	-	-
66	33	15	19	-	-1[b]
67	23	4	11	8	-
68	39	11	18	1	9
69	94	43	7	39	5
1970	82	17	31	22	12
71	6	-	4	2	-
72	15	-	11	2	2
73	69	-	55	1	13
74	41	-	32	9	-
1975	14	-	7	2	5
76	187	16	99	20	52
77	207	2	169	14	22
78	64	1	28	30	5
79	118	1	59	15	43
1980	199	2	144	6	47
81	174	-	126	30	18
82	27	-	20	1	6

[a]Grounds: OS=Ole Spot, HS=Horseshoe, RI-C=Reef Island-Cumshewa.

[b]Negative values due to rounding.

Table 32. Canada-U.S. annual landings of Rock sole from Area 5C and individual localities, 1956-82.

Year	Area 5C	Ground[a] OS	HS	RI-C	Other
1956	397	324	73	-	-
57	726	418	308	-	-
58	368	227	143	-	-2[b]
59	249	213	37	-	-1
1960	471	68	402	-	1
61	110	UNK	UNK	UNK	UNK
62	322	165	138	-	19
63	155	UNK	UNK	UNK	UNK
64	244	174	70	-	-
1965	539	422	111	-	6
66	961	860	101	2	-2
67	948	571	358	9	10
68	811	458	341	4	8
69	1,053	577	288	186	2
1970	694	504	93	92	5
71	376	168	50	160	-2
72	134	71	18	45	-
73	186	101	75	8	2
74	288	23	136	130	-1
1975	416	32	170	178	36
76	277	26	120	119	12
77	272	13	52	205	2
78	356	84	100	172	-
79	647	103	237	210	97
1980	482	74	266	140	2
81	126	9	89	17	11
82	70	3	64	1	2

[a]Grounds: OS=Ole Spot, HS=Horseshoe, RI-C=Reef Island-Cumshewa.

[b]Negative values due to rounding.

Table 33. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Ole Spot, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	194	218	890	89	78	1141	0	0	0
1957	UNK	0	0	19	132	144	3	420	7	6	54	111
1958	103	203	508	314	489	643	1	15	67	UNK	0	0
1959	33	18	1833	155	480	323	9	223	40	17	28	607
1960	0	0	0	2	47	43	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	54	203	266	6	55	109	0	0	0
1963	0	0	0	100	193	518	0	0	0	UNK	0	0
1964	37	48	771	473	481	983	0	0	0	0	0	0
1965	142	136	1044	793	656	1208	13	46	283	28	74	378
1966	557	263	2121	774	645	1200	256	623	411	19	186	102
1967	514	625	822	277	443	625	89	500	178	0	0	0
1968	86	120	717	377	581	649	48	328	146	1	0	0
1969	253	552	458	224	1413	158	3	127	24	0	0	0
1970	38	150	253	47	1175	40	2	136	15	0	0	0
1971	38	88	432	46	412	112	1	17	59	0	0	0
1972	0	0	0	4	31	129	4	40	100	1	27	37
1973	0	0	0	75	216	347	0	0	0	0	0	0
1974	0	0	0	10	51	196	0	0	0	0	0	0
1975	29	15	1933	13	97	134	0	0	0	0	0	0
1976	0	0	0	0	0	0	5	43	116	0	0	0
1977	0	0	0	19	44	432	0	0	0	0	0	0
1978	0	0	0	4	97	41	0	0	0	0	0	0
1979	0	0	0	6	113	53	26	19	1368	0	0	0
1980	1	23	43	14	115	122	3	30	100	0	0	0
1981	19	51	373	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0

Table 34. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Horseshoe, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	126	56	2250	16	29	552	0	0	0
1957	UNK	0	0	49	203	241	45	307	147	53	73	726
1958	0	0	0	705	448	1575	127	28	4536	UNK	0	0
1959	0	0	0	360	377	956	278	174	1600	0	0	0
1960	1	4	250	241	802	300	156	292	535	1	4	250
1961	0	0	0	27	140	193	5	11	455	1	28	36
1962	0	0	0	10	103	97	89	155	574	6	51	118
1963	0	0	0	500	378	1322	122	86	1419	UNK	0	0
1964	0	0	0	1062	632	1680	171	140	1221	77	52	1476
1965	3	12	250	1419	1143	1242	796	692	1150	0	0	0
1966	0	0	0	1967	1280	1536	1034	758	1363	28	19	1474
1967	4	10	400	578	592	976	482	508	948	0	0	0
1968	703	446	1576	462	1277	362	134	385	348	0	0	0
1969	150	269	557	278	1209	230	79	298	266	2	10	200
1970	2	11	182	9	481	19	22	67	328	18	61	295
1971	9	27	333	132	474	278	7	34	207	8	29	276
1972	22	49	449	297	443	671	282	264	1068	1	10	100
1973	1	5	200	777	729	1066	522	272	1918	54	132	409
1974	0	0	0	609	752	810	720	595	1210	25	77	324
1975	40	23	1739	505	1177	429	252	491	513	4	5	800
1976	0	0	0	338	676	500	543	781	695	9	72	125
1977	0	0	0	149	385	387	137	387	354	47	145	324
1978	4	19	211	356	689	517	103	193	533	6	134	45
1979	0	0	0	878	1256	699	382	776	492	14	115	122
1980	98	180	545	762	1249	610	215	779	276	8	153	52
1981	227	460	493	314	980	320	121	740	164	5	12	417
1982	0	0	0	203	529	384	110	981	112	16	283	57

Table 35. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Reef Island-Cumshewa, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	UNK	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	UNK	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	UNK	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	8	11	727	0	0	0	2	8	250
1967	0	0	0	74	2	37000	0	0	0	0	0	0
1968	178	60	2980	0	0	0	1	4	250	0	0	0
1969	192	298	644	79	158	500	2	11	182	0	0	0
1970	100	87	1149	7	393	18	1	6	167	1	45	22
1971	96	205	468	113	215	527	0	0	0	0	0	0
1972	157	294	535	3	38	79	0	0	0	0	0	0
1973	226	199	1137	105	143	734	0	0	0	33	42	786
1974	175	201	871	70	362	193	2	4	500	53	78	679
1975	108	122	885	171	901	190	8	20	400	41	25	1636
1976	334	295	1133	179	172	1042	17	63	270	7	66	106
1977	164	327	502	77	896	86	12	20	600	11	24	458
1978	110	151	730	115	502	229	0	0	0	7	14	500
1979	146	206	707	202	773	261	0	0	0	13	52	250
1980	148	188	788	68	694	98	0	0	0	0	0	0
1981	293	491	597	0	0	0	0	0	0	0	0	0
1982	172	399	431	0	0	0	0	0	0	0	0	0

Table 36. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for English sole from Ole Spot, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	UNK	0	0	5	181	28	0	0	0
1957	UNK	0	0	0	0	0	1	420	2	UNK	0	0
1958	11	163	67	0	0	0	0	0	0	UNK	0	0
1959	2	18	111	6	480	13	0	0	0	7	28	250
1960	0	0	0	4	47	85	0	0	0	0	0	0
1961	0	0	0	6	66	91	0	0	0	0	0	0
1962	0	0	0	11	203	54	0	0	0	0	0	0
1963	UNK	0	0	0	0	0	0	0	0	0	0	0
1964	8	48	167	3	481	6	UNK	0	0	0	0	0
1965	0	0	0	6	568	11	0	0	0	0	0	0
1966	9	235	38	4	602	7	1	466	2	1	181	6
1967	3	181	17	0	0	0	1	332	3	0	0	0
1968	0	0	0	10	578	17	0	0	0	1	2	500
1969	0	0	0	35	1440	24	8	127	63	0	0	0
1970	2	111	18	15	990	15	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	16	43	372	0	0	0
1977	0	0	0	2	0	0	0	0	0	0	0	0
1978	0	0	0	1	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	1	0	0
1980	0	0	0	0	0	0	2	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0

Table 37. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for English sole from Horseshoe, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	UNK	0	0	13	84	155	0	0	0
1957	UNK	0	0	5	161	31	0	0	0	UNK	0	0
1958	0	0	0	3	248	12	0	0	0	UNK	0	0
1959	0	0	0	12	117	103	12	160	75	0	0	0
1960	0	0	0	34	702	48	30	273	110	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	1	3	333	7	151	46	3	51	59
1963	UNK	0	0	10	329	30	0	0	0	0	0	0
1964	0	0	0	3	325	9	UNK	0	0	0	0	0
1965	0	0	0	4	935	4	13	692	19	0	0	0
1966	0	0	0	6	774	8	13	710	18	0	0	0
1967	0	0	0	5	421	12	6	502	12	0	0	0
1968	3	302	10	6	844	7	8	110	73	1	3	333
1969	0	0	0	4	512	8	0	0	0	3	10	300
1970	7	27	259	21	535	39	0	0	0	3	41	73
1971	1	27	37	0	0	0	0	0	0	3	29	103
1972	2	31	65	2	390	5	7	264	27	0	0	0
1973	0	0	0	12	669	18	32	268	119	11	110	100
1974	1	7	143	18	648	28	13	745	17	0	0	0
1975	0	0	0	2	436	5	4	295	14	1	2	500
1976	0	0	0	30	594	51	66	831	79	3	15	200
1977	0	0	0	27	204	132	102	345	295	40	142	282
1978	0	0	0	18	690	26	7	218	32	3	53	57
1979	0	0	0	27	957	28	24	861	28	8	118	68
1980	8	191	42	42	952	44	57	549	104	37	153	242
1981	23	413	56	56	418	134	44	743	59	3	8	375
1982	2	28	71	5	415	12	7	988	7	6	151	40

Table 38. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for English sole from Reef Island-Cumshewa, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	UNK	0	0	0	0	0	0	0	0
1957	UNK	0	0	0	0	0	0	0	0	UNK	0	0
1958	0	0	0	0	0	0	0	0	0	UNK	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	UNK	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	UNK	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	8	2	4000	0	0	0	0	0	0
1968	1	42	24	0	0	0	0	0	0	0	0	0
1969	9	117	77	30	447	67	0	0	0	1	45	22
1970	1	23	43	20	385	52	0	0	0	0	0	0
1971	1	116	9	1	0	0	0	0	0	1	4	250
1972	1	263	4	0	0	0	0	0	0	0	0	0
1973	0	0	0	1	60	17	0	0	0	0	0	0
1974	0	0	0	9	191	47	0	0	0	2	16	125
1975	0	0	0	0	0	0	0	0	0	8	66	121
1976	3	217	14	5	256	20	4	63	63	1	10	100
1977	6	231	26	5	728	7	2	20	100	0	0	0
1978	0	0	0	30	531	57	0	0	0	2	52	38
1979	2	99	20	11	740	15	0	0	0	0	0	0
1980	1	401	2	5	444	11	0	0	0	0	0	0
1981	30	284	106	0	0	0	0	0	0	0	0	0
1982	0	0	0	1	3	333	0	0	0	0	0	0

Table 39. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for rock sole from Ole Spot, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	133	249	534	191	251	762	0	0	0
1957	15	38	395	65	126	516	270	517	523	68	109	624
1958	58	189	307	158	459	344	9	15	600	2	8	250
1959	14	18	778	165	480	344	31	223	139	3	28	107
1960	0	0	0	56	47	1191	12	19	632	0	0	0
1961	UNK	0	0	31	72	431	0	0	0	UNK	0	0
1962	0	0	0	133	203	655	31	55	564	1	4	250
1963	UNK	0	0	67	193	347	4	5	800	7	55	127
1964	12	48	250	125	481	260	36	60	600	1	3	333
1965	28	136	206	145	638	227	77	55	1400	172	74	2324
1966	63	260	242	221	602	367	413	623	663	163	181	901
1967	135	625	216	178	442	403	241	434	555	17	36	472
1968	30	120	250	195	606	322	216	328	659	17	14	1214
1969	98	552	178	411	1471	279	63	140	450	5	7	714
1970	44	157	281	403	1201	336	57	144	396	0	0	0
1971	18	88	205	131	516	254	18	64	283	1	13	77
1972	1	9	111	11	20	550	35	46	761	24	27	889
1973	0	0	0	88	216	407	12	42	286	1	2	500
1974	1	4	250	17	51	333	4	9	444	1	2	500
1975	4	23	174	23	97	237	5	15	333	0	0	0
1976	0	0	0	3	16	188	18	78	231	5	12	417
1977	1	5	200	12	58	207	0	0	0	0	0	0
1978	28	52	538	30	104	289	26	80	325	0	0	0
1979	10	35	286	46	113	407	44	67	662	3	5	600
1980	6	23	261	35	145	241	33	76	434	0	0	0
1981	6	51	118	2	12	167	0	0	0	1	0	0
1982	3	13	231	0	0	0	0	0	0	0	0	0

Table 40. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for rock sole from Horseshoe, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	1	32	31	72	84	857	0	0	0
1957	0	0	0	128	236	542	155	355	436	25	73	342
1958	0	0	0	72	433	166	44	58	759	27	91	297
1959	5	9	556	21	448	47	11	125	88	0	0	0
1960	2	4	500	264	692	381	135	318	425	1	4	250
1961	UNK	0	0	64	223	287	3	11	273	UNK	0	0
1962	0	0	0	52	121	429	47	151	311	39	51	765
1963	UNK	0	0	56	317	177	15	61	245	0	0	0
1964	0	0	0	58	637	91	12	140	86	0	0	0
1965	2	12	167	60	1101	54	49	692	71	0	0	0
1966	0	0	0	75	1239	61	21	746	28	5	19	263
1967	2	13	154	80	483	166	276	683	404	0	0	0
1968	8	434	18	172	1114	154	161	417	386	0	0	0
1969	18	294	61	184	1377	134	86	417	206	0	0	0
1970	4	37	108	72	540	133	17	46	366	0	0	0
1971	1	0	0	38	431	88	8	31	258	3	29	103
1972	0	0	0	11	471	23	6	264	23	1	10	100
1973	0	0	0	55	728	76	13	118	110	7	132	53
1974	0	0	0	48	205	234	62	574	108	26	80	324
1975	3	23	130	119	1225	97	45	491	92	3	0	0
1976	0	0	0	8	594	13	84	707	119	28	22	1273
1977	0	0	0	40	395	101	11	418	26	1	0	0
1978	1	7	143	59	422	140	29	121	240	11	32	344
1979	0	0	0	74	1172	63	125	600	208	38	63	607
1980	9	107	84	124	1139	109	125	659	190	8	2	4000
1981	12	452	27	51	592	86	26	875	30	0	0	0
1982	1	0	0	17	630	27	38	847	45	8	323	25

Table 41. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for rock sole from Reef Island-Cumshewa, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	UNK	0	0	0	0	0	0	0	0	UNK	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	UNK	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	2	11	182	0	0	0	0	0	0
1967	0	0	0	0	0	0	9	13	692	0	0	0
1968	2	46	43	0	0	0	2	8	250	0	0	0
1969	35	233	150	150	546	275	1	11	91	0	0	0
1970	6	25	240	63	472	133	1	6	167	22	45	489
1971	3	120	25	153	460	333	1	6	167	3	28	107
1972	9	263	34	32	64	500	4	3	1333	0	0	0
1973	2	133	15	4	143	28	0	0	0	2	42	48
1974	8	61	131	121	305	397	1	4	250	0	0	0
1975	4	122	33	165	790	209	2	12	167	7	16	438
1976	9	217	41	98	358	274	7	63	111	5	66	76
1977	8	197	41	183	861	213	14	42	333	0	0	0
1978	5	126	40	152	536	284	13	36	361	2	14	143
1979	27	138	196	176	716	246	1	7	143	6	55	109
1980	51	450	113	89	694	128	0	0	0	0	0	0
1981	14	154	91	3	22	136	0	0	0	0	0	0
1982	1	177	6	0	0	0	0	0	0	0	0	0

Table 42. Canada-U.S. annual landings of Pacific cod from Area 5D and individual localities, 1956-82.

Year	Area 5D	Ground[a] DU	TP	BU	WR-B	SH	Other
1956	2,334	8	634	836	-	-	856
57	4,704	-	1,040	824	1,159	-	1,681
58	3,932	25	1,134	682	-	-	2,091
59	4,269	-	1,516	140	43	-	2,570
1960	1,958	-	842	71	109	-	936
61	1,583	3	590	138	821	-	31
62	1,525	-	553	107	853	-	12
63	2,204	-	895	189	1,004	-	116
64	3,409	-	1,833	393	1,131	7	45
1965	5,858	-	2,973	303	2,406	-	176
66	4,828	-	2,350	486	1,075	-	917
67	3,077	-	590	584	1,397	28	478
68	3,075	1	745	565	984	29	751
69	1,686	-	501	393	472	172	148
1970	1,086	12	332	266	377	31	68
71	1,021	11	350	201	279	152	28
72	1,921	44	766	540	437	121	13
73	2,206	18	1,196	123	424	432	13
74	3,099	34	1,273	331	623	788	50
1975	3,780	30	1,397	348	907	1,070	28
76	3,509	82	946	373	1,480	618	10
77	2,843	45	1,564	389	557	256	32
78	1,395	16	566	141	506	47	119
79	2,968	72	1,419	739	573	111	54
1980	3,165	17	1,392	428	978	174	176
81	2,184	11	853	405	673	181	61
82	1,560	19	681	324	489	11	36

[a]Grounds: DU=Dundas, TP=Two Peaks, BU=Butterworth, WR-B=White Rocks-Bonilla, SH=Shell.

Table 43. Canada-U.S. annual landings of English sole from Area 5D and individual localities, 1956-82.

Year	Area	Ground[a]					
	5D	DU	TP	BU	WR-B	SH	Other
1956	935	53	155	629	-	-	98
57	539	-	100	278	67	-	94
58	674	7	175	329	-	-	163
59	901	-	419	133	9	-	340
1960	1,079	-	344	443	126	-	166
61	865	3	461	176	224	-	1
62	436	-	237	99	98	-	2
63	369	-	187	81	82	-	19
64	420	-	137	138	142	-	3
1965	391	-	227	51	102	-	11
66	329	-	121	73	120	-	15
67	511	-	140	207	128	-	36
68	632	-	268	282	62	-	20
69	725	5	385	256	45	18	16
1970	920	13	270	562	52	-	23
71	482	23	108	272	55	11	13
72	356	2	102	186	60	3	3
73	598	1	154	260	174	4	5
74	459	13	149	178	107	4	8
1975	924	-	147	571	195	3	8
76	946	25	160	387	372	1	1
77	972	5	291	379	275	7	15
78	495	7	168	187	118	3	12
79	746	10	195	327	187	13	14
1980	796	8	281	304	156	11	36
81	1,153	9	562	356	172	3	51
82	401	2	227	68	94	3	7

[a]Grounds: DU=Dundas, TP=Two Peaks, BU=Butterworth, WR-B=White Rocks-Bonilla, SH=Shell.

Table 44. Canada-U.S. annual landings of Rock sole from Area 5D and individual localities, 1956-82.

Year	Area 5D	Ground[a] DU	TP	BU	WR-B	SH	Other
1956	763	UNK	UNK	UNK	UNK	UNK	UNK
57	425	-	3	77	22	-	323
58	888	254	300	222	-	-	112
59	167	UNK	UNK	UNK	UNK	UNK	UNK
1960	656	1	100	522	31	-	2
61	634	-	110	517	7	-	-
62	507	4	355	143	4	-	1
63	726	-	586	65	2	-	73
64	499	-	259	161	5	43	31
1965	340	2	201	19	11	-	107
66	1,583	-	489	674	9	21	390
67	1,214	-	264	671	26	77	176
68	1,555	5	225	945	104	49	227
69	1,356	-	360	835	25	62	74
1970	709	5	116	323	7	223	35
71	1,127	-	164	685	58	203	17
72	381	1	35	182	12	143	8
73	321	-	91	57	21	149	3
74	334	1	53	137	9	116	18
1975	821	79	148	324	12	246	12
76	1,161	167	163	627	24	174	6
77	574	6	113	253	16	110	76
78	518	5	134	182	26	95	76
79	666	3	179	121	16	272	75
1980	495	3	94	191	23	100	84
81	458	10	87	170	50	106	35
82	222	18	23	93	19	38	31

[a]Grounds: DU=Dundas, TP=Two Peaks, BU=Butterworth, WR-B=White Rocks-Bonilla, SH=Shell.

Table 45. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Dundas, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	8	46	174	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	21	16	1313	0	0	0	0	0	0	4	190	21
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	3	13	231	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	1	9	111	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	3	111	27	6	140	43	3	99	30
1971	0	0	0	6	50	120	3	454	7	2	58	34
1972	0	0	0	9	315	29	24	648	37	11	81	135
1973	0	0	0	0	0	0	15	287	52	3	132	23
1974	0	0	0	1	49	20	29	516	56	4	28	143
1975	0	0	0	2	265	8	17	398	43	11	192	57
1976	0	0	0	8	238	34	49	557	88	25	382	65
1977	0	0	0	5	123	41	40	54	743	0	0	0
1978	0	0	0	2	24	83	11	200	55	3	69	43
1979	2	89	22	7	114	61	62	632	98	1	0	0
1980	0	0	0	2	82	24	14	361	39	1	41	24
1981	0	0	0	2	236	8	8	432	19	1	18	56
1982	0	0	0	3	54	56	15	468	32	1	18	56

Table 46. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Two Peaks, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	132	110	1205	439	120	3653	0	0	0	63	11	5727
1957	321	200	1607	604	195	3096	115	50	2300	0	0	0
1958	187	245	764	594	447	1329	329	153	2151	24	16	1500
1959	282	418	674	328	547	600	850	295	2879	56	53	1057
1960	50	233	215	127	207	613	584	457	1279	81	46	1750
1961	109	365	299	248	405	612	216	183	1178	17	41	412
1962	62	226	275	87	317	274	399	175	2276	5	36	139
1963	165	269	614	269	388	694	457	718	636	4	48	83
1964	171	134	1276	286	143	2000	1301	564	2306	75	86	877
1965	515	363	1420	244	419	582	2090	720	2904	124	124	1000
1966	192	289	665	1705	1052	1620	451	456	990	2	36	56
1967	42	98	429	115	89	1299	366	318	1150	67	115	583
1968	146	308	475	336	540	622	262	378	693	1	10	100
1969	16	260	62	104	375	278	362	388	933	19	133	143
1970	39	100	392	50	282	177	201	298	674	42	217	194
1971	6	96	63	65	184	354	268	523	512	11	58	190
1972	9	29	310	122	329	370	543	637	852	92	127	722
1973	1	13	77	196	290	675	953	571	1668	46	119	388
1974	0	0	0	30	138	218	1172	906	1294	71	163	435
1975	0	0	0	282	390	722	1115	1126	990	0	0	0
1976	9	41	220	82	304	270	817	1235	661	38	267	142
1977	36	132	273	106	942	112	1402	2796	502	20	158	127
1978	55	382	144	172	699	246	305	848	360	34	327	104
1979	26	212	123	273	585	466	1101	2537	434	19	215	88
1980	166	466	356	278	733	379	935	2282	410	13	116	112
1981	18	268	67	402	2476	162	413	1283	322	20	264	76
1982	13	246	53	268	587	457	369	654	564	31	236	131

Table 47. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Butterworth, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	291	134	2172	481	668	720	60	96	625	4	4	1000
1957	451	207	2182	297	219	1358	71	74	959	5	2	2500
1958	191	212	903	291	445	654	22	69	319	178	38	4684
1959	115	147	784	18	111	162	7	21	333	0	0	0
1960	34	134	254	17	193	88	16	85	188	4	12	333
1961	56	126	444	79	160	493	0	0	0	3	11	273
1962	62	115	539	42	104	404	3	13	231	0	0	0
1963	122	289	422	29	140	207	0	0	0	38	37	1028
1964	185	294	629	183	314	582	3	1	3000	22	28	786
1965	269	242	1112	26	34	774	8	4	2000	0	0	0
1966	125	155	807	332	225	1478	4	97	41	25	38	657
1967	94	205	458	152	93	1643	219	164	1337	119	163	731
1968	200	355	564	287	1391	206	61	271	225	17	45	378
1969	114	316	360	200	761	263	41	341	120	38	237	160
1970	56	318	176	144	921	156	35	170	206	31	221	140
1971	16	204	78	88	1065	83	80	465	172	17	202	84
1972	13	99	131	186	571	326	330	332	993	11	43	256
1973	6	11	556	82	317	259	29	79	367	6	29	207
1974	0	0	0	80	95	843	237	235	1010	14	98	143
1975	19	83	229	186	782	238	89	290	307	54	294	184
1976	11	76	145	276	971	284	58	575	101	28	259	108
1977	28	128	218	197	1096	180	153	386	396	11	149	74
1978	11	96	115	78	702	111	48	304	158	4	53	75
1979	19	175	109	394	1114	354	314	1157	271	12	138	87
1980	170	618	275	129	982	131	124	835	149	5	56	89
1981	63	309	204	240	1505	159	101	825	122	1	16	63
1982	20	64	314	209	428	488	88	269	327	7	201	35

Table 48. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from White Rocks-Bonilla, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	229	64	3578	0	0	0	0	0	0	930	669	1391
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	43	38	1132
1960	1	6	167	0	0	0	3	7	429	105	438	240
1961	720	1225	588	10	46	220	2	21	95	89	546	163
1962	679	1615	420	2	6	333	59	79	747	113	331	341
1963	872	1475	591	0	0	0	46	11	4182	86	221	389
1964	506	897	564	22	42	524	56	63	889	547	575	951
1965	1068	1268	842	272	257	1058	489	177	2757	577	710	812
1966	613	962	637	68	22	3143	120	250	480	274	795	345
1967	498	925	539	2	6	333	178	167	1066	719	961	748
1968	692	1183	585	98	169	580	110	143	768	84	327	257
1969	268	1084	247	25	24	1045	168	169	993	11	31	360
1970	362	615	589	3	31	97	7	36	194	5	61	82
1971	224	757	296	45	116	387	3	22	136	7	179	39
1972	132	457	289	0	0	0	8	26	304	297	446	665
1973	179	453	395	14	77	182	23	26	885	208	426	488
1974	184	417	441	210	168	1247	33	63	524	196	425	461
1975	520	948	548	20	116	172	16	24	667	351	937	374
1976	720	1454	495	200	654	306	146	569	256	414	1520	272
1977	152	897	169	88	491	179	174	707	246	143	642	223
1978	169	536	315	111	384	289	101	259	390	125	540	232
1979	362	811	447	72	234	307	53	277	191	86	392	220
1980	716	1613	444	128	472	271	12	127	94	122	203	601
1981	308	690	446	196	512	383	74	391	189	95	319	298
1982	301	882	341	110	364	302	9	113	80	69	408	169

Table 49. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for Pacific cod from Shell, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	6	22	273	1	6	167
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	3	7	429	13	4	3250	10	14	714	2	13	154
1968	19	16	1188	9	41	220	0	0	0	1	0	0
1969	35	67	523	129	188	686	8	29	276	0	0	0
1970	7	22	318	23	222	104	0	0	0	1	13	77
1971	106	264	401	46	220	209	0	0	0	0	0	0
1972	6	63	95	88	170	518	27	83	325	0	0	0
1973	132	99	1330	299	312	958	0	0	0	1	9	111
1974	4	18	222	738	473	1560	46	97	474	0	0	0
1975	119	140	850	925	1277	724	26	42	619	0	0	0
1976	201	167	1204	308	341	903	109	157	694	0	0	0
1977	44	114	386	208	541	385	4	26	154	0	0	0
1978	8	26	308	39	168	232	0	0	0	0	0	0
1979	1	23	43	63	48	1313	47	289	163	0	0	0
1980	60	51	1176	109	563	194	5	23	217	0	0	0
1981	103	184	587	70	202	347	3	56	54	0	0	0
1982	1	5	200	9	129	70	0	0	0	1	8	125

Table 50. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for English sole from Dundas, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	47	87	537	0	0	0	6	15	400
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	7	16	438	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	3	13	231	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	5	4	1250	0	0	0	0	0	0
1970	0	0	0	5	33	152	2	33	61	6	33	182
1971	0	0	0	23	50	460	0	0	0	0	0	0
1972	0	0	0	0	0	0	1	336	3	1	23	43
1973	0	0	0	0	0	0	0	0	0	1	132	8
1974	0	0	0	0	0	0	13	40	325	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	10	109	92	4	341	12	11	60	183
1977	0	0	0	1	83	12	4	302	13	0	0	0
1978	1	14	71	1	27	37	5	200	25	0	0	0
1979	2	89	22	2	16	125	6	520	12	0	0	0
1980	0	0	0	4	143	28	4	335	12	0	0	0
1981	0	0	0	9	250	36	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	2	18	111

Table 51. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for English sole from Two Peaks, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	57	73	781	91	80	1141	5	22	227	2	11	182
1957	43	70	615	42	208	202	15	50	300	0	0	0
1958	50	237	211	78	489	160	36	174	207	11	16	688
1959	155	494	313	136	547	249	115	216	533	13	53	245
1960	79	231	342	66	191	346	174	399	436	25	46	548
1961	161	384	419	169	416	406	119	188	633	12	34	353
1962	79	269	294	118	328	360	37	180	205	3	45	67
1963	84	275	305	66	407	162	29	626	46	8	48	167
1964	21	141	149	58	156	371	47	658	71	11	99	111
1965	29	427	68	103	428	241	61	1161	53	34	88	387
1966	40	312	128	61	906	67	17	441	39	3	15	200
1967	65	96	678	19	103	184	48	279	172	8	123	65
1968	119	332	359	89	527	169	59	434	136	1	10	100
1969	102	231	441	157	462	340	104	440	236	22	138	160
1970	43	106	407	120	375	320	87	299	291	20	176	113
1971	22	96	229	41	316	130	39	614	64	6	65	93
1972	5	29	172	47	385	122	41	537	76	9	199	45
1973	2	16	125	64	321	199	55	690	80	33	124	265
1974	0	0	0	18	131	138	118	920	128	13	65	200
1975	0	0	0	56	284	197	89	1147	78	2	8	250
1976	12	41	293	54	388	139	78	1614	48	16	230	70
1977	11	132	83	134	791	169	140	2195	64	6	98	61
1978	46	418	110	49	575	85	51	905	56	22	367	60
1979	32	176	182	63	528	119	88	2592	34	12	161	74
1980	40	446	90	103	759	136	129	1776	73	9	131	69
1981	34	261	130	423	2114	200	93	1444	64	12	274	44
1982	63	238	264	80	602	133	45	569	79	39	233	167

Table 52. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for English sole from Butterworth, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	66	140	470	494	688	718	67	124	541	2	4	500
1957	144	202	712	125	237	528	9	91	99	0	0	0
1958	100	231	434	210	438	479	16	75	213	3	0	0
1959	48	146	328	73	137	532	10	16	625	2	3	667
1960	74	138	537	277	170	1629	90	87	1035	2	11	182
1961	68	126	540	101	150	671	0	0	0	7	11	636
1962	32	115	278	63	104	606	3	13	231	1	1	1000
1963	32	308	104	44	140	314	0	0	0	5	45	111
1964	72	311	231	64	113	566	0	0	0	2	22	91
1965	32	242	132	18	35	516	0	0	0	1	1	1000
1966	38	145	262	17	180	94	4	14	286	14	23	619
1967	107	197	542	58	74	784	27	163	166	13	160	94
1968	150	315	476	74	308	241	51	86	593	7	45	156
1969	89	326	273	38	142	268	20	88	227	109	231	472
1970	195	313	622	225	474	474	77	182	424	65	246	264
1971	50	208	240	124	389	319	62	172	361	36	202	178
1972	15	102	147	94	291	324	68	340	200	9	43	209
1973	9	26	350	194	292	665	47	61	767	10	28	357
1974	0	0	0	103	117	882	54	312	173	21	118	179
1975	59	83	711	389	628	619	98	284	345	25	208	120
1976	4	62	65	277	780	355	62	589	105	44	279	158
1977	35	105	333	250	1256	199	77	449	171	17	135	126
1978	9	87	103	125	771	162	50	376	133	3	35	87
1979	36	138	260	175	997	176	100	812	123	16	138	116
1980	80	547	146	123	638	193	94	789	119	7	65	107
1981	71	290	245	227	1059	214	57	745	77	1	16	63
1982	8	67	119	42	122	344	14	267	52	4	268	15

Table 53. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for English sole from White Rocks-Bonilla, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	7	55	127	5	4	1250	0	0	0	55	831	66
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	9	38	237
1960	0	0	0	0	0	0	0	0	0	126	457	276
1961	122	1326	92	21	41	512	0	0	0	81	493	164
1962	62	1470	42	1	6	167	4	79	51	31	414	75
1963	46	1527	30	2	11	182	3	11	273	31	210	148
1964	78	943	83	5	50	100	7	63	111	52	536	97
1965	41	1254	33	8	224	36	13	256	51	40	619	65
1966	19	903	21	2	10	200	11	217	51	88	760	116
1967	70	890	79	0	0	0	6	167	36	52	873	60
1968	26	1179	22	6	159	38	5	126	40	25	300	83
1969	31	1011	31	0	0	0	4	100	40	10	44	225
1970	36	613	59	1	23	43	6	36	167	9	61	148
1971	33	757	44	5	139	36	3	22	136	14	165	85
1972	21	503	42	0	0	0	4	26	154	35	377	93
1973	69	546	126	18	66	273	5	37	135	82	418	196
1974	53	566	94	7	98	71	10	70	143	37	606	61
1975	49	821	60	17	123	138	0	0	0	129	711	182
1976	84	1228	68	67	672	100	90	599	150	131	1669	78
1977	88	760	116	38	518	73	103	710	145	46	790	58
1978	42	669	63	27	414	65	16	259	62	33	407	81
1979	58	833	70	35	248	141	18	277	65	76	484	157
1980	64	1806	35	34	428	79	16	127	126	42	142	297
1981	51	901	57	21	623	34	63	404	156	37	289	128
1982	50	892	56	11	397	28	7	110	64	26	410	63

Table 54. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for English sole from Shell, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	16	188	85	1	29	34	0	0	0
1969	1	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	3	162	19	0	0	0	0	0	0
1971	8	220	36	3	186	16	0	0	0	0	0	0
1972	0	0	0	2	268	7	1	24	42	0	0	0
1973	1	0	0	0	0	0	3	72	42	0	0	0
1974	1	0	0	2	658	3	0	0	0	0	0	0
1975	1	118	8	1	141	7	0	0	0	0	0	0
1976	0	0	0	7	277	25	0	0	0	0	0	0
1977	0	0	0	2	101	20	0	0	0	0	0	0
1978	1	24	42	0	0	0	11	289	38	0	0	0
1979	2	23	87	4	541	7	7	37	189	0	0	0
1980	0	0	0	1	85	12	0	0	0	1	0	0
1981	2	94	21	1	20	50	0	0	0			
1982	1	22	45									

Table 55. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for rock sole from Dundas, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	UNK	0	0	0	0	0	0	0	0	6	15	400
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	179	172	1041	75	190	395
1959	0	0	0	0	0	0	0	0	0	UNK	0	0
1960	1	4	250	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	4	15	267
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	2	2	1000
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	5	9	556	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	4	117	34	1	33	30
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	1	23	43
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	1	40	25	0	0	0
1975	0	0	0	0	0	0	49	111	441	30	91	330
1976	0	0	0	2	28	71	98	175	561	67	131	511
1977	0	0	0	1	40	25	5	158	32	0	0	0
1978	0	0	0	0	0	0	3	200	15	2	69	29
1979	0	0	0	3	16	188	0	0	0	0	0	0
1980	0	0	0	3	82	37	0	0	0	0	0	0
1981	0	0	0	0	0	0	10	422	24	0	0	0
1982	0	0	0	0	0	0	18	13	1385	0	0	0

Table 56. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for rock sole from Two Peaks, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	UNK	0	0	2	41	49	44	34	1294	0	0	0
1957	0	0	0	2	148	14	1	2	500	0	0	0
1958	0	0	0	37	55	673	263	164	1604	0	0	0
1959	0	0	0	51	547	93	40	254	157	UNK	0	0
1960	1	0	0	1	150	7	94	376	250	4	14	286
1961	0	0	0	0	0	0	110	174	632	0	0	0
1962	0	0	0	9	303	30	339	230	1476	7	4	1750
1963	0	0	0	100	382	262	484	575	841	2	21	95
1964	0	0	0	7	62	113	251	566	443	1	0	0
1965	0	0	0	4	156	26	196	625	314	1	43	23
1966	0	0	0	75	1083	69	413	391	1055	1	21	48
1967	2	75	27	0	0	0	253	273	927	9	68	132
1968	0	0	0	39	471	83	185	424	436	1	5	200
1969	5	120	42	18	367	49	336	553	608	1	87	11
1970	0	0	0	4	42	95	110	326	338	2	129	16
1971	0	0	0	10	18	571	151	474	319	3	26	115
1972	0	0	0	24	247	97	6	386	16	5	50	100
1973	0	0	0	37	132	280	50	717	70	4	42	95
1974	0	0	0	5	124	40	43	775	55	5	100	50
1975	0	0	0	33	352	94	115	1182	97	0	0	0
1976	0	0	0	27	135	200	132	1411	94	4	58	69
1977	0	0	0	19	542	35	89	2077	43	5	83	60
1978	0	0	0	91	574	159	43	699	62	0	0	0
1979	0	0	0	75	509	147	97	2235	43	7	141	50
1980	1	9	111	20	599	33	73	1702	43	0	0	0
1981	2	0	0	41	1666	25	42	1171	36	2	222	9
1982	0	0	0	18	197	91	4	143	28	1	70	14

Table 57. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for rock sole from Butterworth, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	UNK	0	0	28	266	105	268	349	768	14	15	933
1957	1	0	0	41	119	344	11	37	296	24	42	571
1958	24	112	214	38	124	308	160	73	2178	0	0	0
1959	0	0	0	48	111	432	0	0	0	UNK	0	0
1960	1	130	8	131	73	1786	240	104	2318	150	54	2778
1961	0	0	0	399	172	2320	81	28	2893	37	15	2467
1962	2	71	28	3	12	250	24	13	1846	114	64	1781
1963	5	0	0	3	140	21	57	45	1267	0	0	0
1964	7	294	24	90	233	386	64	49	1306	0	0	0
1965	0	0	0	4	22	182	15	4	3750	0	0	0
1966	18	14	1286	133	218	611	251	95	2632	272	169	1609
1967	35	78	452	77	43	1791	297	158	1884	262	278	942
1968	6	307	20	648	1173	553	218	271	804	73	192	381
1969	4	134	30	440	655	671	387	274	1412	4	147	27
1970	2	24	83	128	329	390	115	145	791	78	201	389
1971	4	130	31	452	861	525	200	425	471	29	178	163
1972	1	0	0	134	358	374	46	260	177	1	15	67
1973	0	0	0	30	230	130	24	53	449	3	9	333
1974	0	0	0	30	95	315	105	221	475	2	87	23
1975	1	57	18	22	418	53	160	409	392	141	386	365
1976	13	59	222	142	673	211	280	583	480	192	146	1317
1977	14	39	364	106	1217	87	84	379	221	49	108	455
1978	1	0	0	37	311	119	127	401	317	17	39	432
1979	2	0	0	28	1180	24	88	947	93	3	138	22
1980	4	509	8	56	710	79	123	940	131	8	37	219
1981	6	198	30	114	956	119	49	560	88	1	4	250
1982	1	46	22	37	432	86	5	248	20	50	184	272

Table 58. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for rock sole from White Rocks-Bonilla, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	UNK	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	22	434	51
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	UNK	0	0
1960	0	0	0	0	0	0	0	0	0	31	31	1000
1961	6	833	7	1	1	1000	0	0	0	0	0	0
1962	1	3	333	1	6	167	0	0	0	2	20	100
1963	0	0	0	0	0	0	0	0	0	2	28	71
1964	0	0	0	0	0	0	0	0	0	5	536	9
1965	0	0	0	5	193	26	0	0	0	6	88	68
1966	2	527	4	2	10	200	4	6	667	1	342	3
1967	4	24	167	0	0	0	2	151	13	20	476	42
1968	3	106	28	4	18	222	23	138	167	74	288	257
1969	2	7	286	7	21	333	16	34	469	0	0	0
1970	0	0	0	5	8	625	0	0	0	2	36	56
1971	3	502	6	8	39	205	5	16	313	42	176	238
1972	2	315	6	0	0	0	0	0	0	10	268	37
1973	2	192	10	0	0	0	0	0	0	19	172	110
1974	3	300	10	1	28	36	0	0	0	5	21	238
1975	6	921	7	0	0	0	0	0	0	6	174	34
1976	3	1343	2	3	410	7	3	286	10	15	1086	14
1977	2	360	6	7	348	20	4	675	6	3	160	19
1978	16	400	40	6	377	16	1	195	5	3	170	18
1979	3	6	500	1	0	0	4	277	14	8	90	89
1980	20	387	52	2	390	5	1	61	16	0	0	0
1981	26	841	31	12	25	478	5	135	37	7	177	40
1982	8	99	81	2	46	43	0	0	0	9	372	24

Table 59. Canada-U.S. landings(t), effort(h) and LPUE(kg/h) for rock sole from Shell, by quarter, by year, 1956-82.

Year	Q1			Q2			Q3			Q4		
	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)	Land (t)	Eff (h)	LPUE (kg/h)
1956	UNK	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	UNK	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	30	22	1364	13	6	2167
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	21	7	3000	0	0	0
1967	2	7	286	0	0	0	12	14	857	63	32	1969
1968	11	23	478	11	41	268	5	5	1000	22	29	759
1969	31	65	477	25	188	133	6	29	207	0	0	0
1970	15	29	517	165	356	463	39	47	830	4	13	308
1971	120	310	387	81	233	348	2	4	500	0	0	0
1972	16	69	232	45	195	231	64	83	771	18	32	563
1973	18	87	207	100	312	321	18	34	529	13	13	1000
1974	1	10	100	66	529	125	46	97	474	3	12	250
1975	41	140	293	178	982	181	19	42	452	8	16	500
1976	30	167	180	101	322	313	39	157	248	4	46	87
1977	33	121	272	70	382	183	5	38	133	2	10	200
1978	7	50	140	22	159	138	66	131	504	0	0	0
1979	10	18	571	14	48	292	245	363	675	3	18	167
1980	17	77	221	74	497	149	9	37	243	0	0	0
1981	15	184	82	71	249	286	20	56	357	0	0	0
1982	6	26	231	25	146	171	0	0	0	7	41	171